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# THE EDISON MONTHLY

JUNE

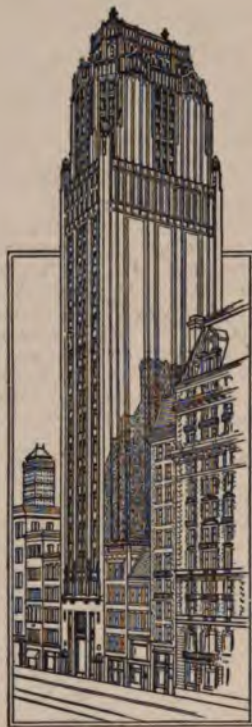


1917

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THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.

# Great Bush Terminal Building To Use Central Station Supply



This huge merchandise clearing house going up at 132-134 West Forty-second Street will complete its perfect equipment with Edison Service. A more than thorough investigation of electric services was made. And the convincing proof of the superiority of street service resulted in a contract with the Central Station

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## The New York Edison Company

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126 Delancey Street	Orchard 1960	15 East 125th Street	Harlem 4020
10 Irving Place	Stuyvesant 5600	362 East 149th Street	Melrose 9900
124 West 42nd Street	Bryant 5262	Night and Emergency Call, Farragut 3000	

**All Show Rooms Open Until Midnight**

# The New York Edison Directory

## Department Stores which Sell Electric Appliances

Adams-Flanigan Co—Westchester & Third Ave  
Bronx Basement  
Barnett Bros—Columbus Ave & 74th St  
Basement  
\*Bloomingdale Bros—59th St & Third Ave  
Basement  
John Daniell Sons—759 Broadway Basement  
\*Gimbel Bros—6th Ave & 33d St Fifth Floor  
\*J B Greenhut & Co—6th Ave & 18th St  
Basement  
H C F Koch & Co—132 W 125th St Basement  
Lewis & Conger—Sixth Ave & 45th St First Floor

Liggett-Riker-Hegeman Drug Stores  
\*Lord & Taylor—5th Ave & 38th St Fifth Floor  
\*James McCreery—5 W 34th St Sixth Floor  
\*R H Macy & Co—Broadway & 35th St  
Basement  
Rothenberg & Co—34 W 14th St Basement  
Stern Bros—41 W 42d St Fourth Floor  
\*John Wanamaker—Broadway & 10th St  
Seventh Floor

\*These stores maintain special electrical departments where wide varieties of electric household appliances are always displayed.

## Manufacturers and Agents

### Arc Lamps

Cooper-Hewitt Elec Co—730 Grand Street  
Hoboken N J  
General Electric Co—30 Church St  
General Illuminating Co—369 Broadway  
Hallberg J H—38 E 23d St  
Kandem Electric Co Inc—49 E 21st St  
Stave Electrical Co—131 Hudson St  
Western Elec Co—463 West St and 105 West  
40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wohl M J & Co—211 Fulton St Brooklyn N Y

### Mercury Vapor Lamps

Cooper-Hewitt Elec Co—730 Grand Street Ho-  
boken N J  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

### Automobiles

C—Commercial I—Industrial P—Passenger

Anderson Electric Car Co of N Y (Detroit Elec-  
tric)—Central Park West at 62d St (C & P)  
Atlantic Elec Vehicle Co—52 Vanderbilt Ave (C)  
Automatic Transportation Co—258 B'way (I)  
Baker R & L New York Corporation The—  
Central Park West at 62d St (P)  
Buda Co of Chicago—30 Church St (I)  
Comm'l Truck Co of America—30 E 42d St (C)  
Couple Gear Co—(Clarence L Smith Co Agents)  
—544 W 30th St (C)  
Cowan Truck Co—114 Liberty St (I)  
Electric Automobile Sales Corp—Times Bldg (C)  
Electro Coach Corp—30 Church St (Busses)  
Elwell-Parker Electric Co (Lucian C & G W  
Brown Agts)—50 Church St (I)  
Field Omnibus Co—149 Broadway (Busses)  
General Vehicle Co—30 East 42d St (C) (I)  
Healey & Co—Broadway and 51st St (P)  
Hoagland-Thayer Inc—383 Halsey Street  
Newark N J (I)  
Hunt Co C W Inc—61 Broadway (I)  
Lansden Co Inc The—Flatbush & Nostrand  
Aves Brooklyn (C)  
Lansing Co—288-9 West St (I)  
Mercury Mfg Co—(Truck & Tractor Co Agents)  
25 Church St  
Ohio Electric Car Co (Robt W Schuette Agent)  
—236 West 54th St (P)  
Orenstein-Arthur Koppel Co—30 Church St (I)

Walker Vehicle Co—Grand Central Terminal  
Room 3709 (C)  
Ward Motor Vehicle Co—Mt Vernon N Y (C)

### Charging Apparatus

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—Belleville N J  
Electric Products Co The—30 E 42d St  
General Electric Co—30 Church St  
Industrial Controller Co—50 Church St  
Lincoln Electric Co—149 Broadway  
Northwestern Electric Co The—1457-63 B'way  
Wagner Electric Mfg Co—30 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Elec & Mfg Co—165 Broadway

### Charging Apparatus for Ignition, Starting and Lighting Batteries

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—Belleville N J  
Edison Thomas A Inc—141 Lakeside Ave  
Orange N J  
Electric Products Co—30 E 42d St  
General Electric Co—30 Church St  
Lincoln Electric Co—149 Broadway  
Robbins & Myers Co—30 Church St  
Wagner Electric Mfg Co—50 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Electric & Manufacturing Co—  
165 Broadway

### Mechanical and Battery Parts

Anderson Electric Car Co—Central Park West  
at 62d St  
Anderson Mfg Co Albert & J M—135 Broadway  
Baker R & L New York Corporation The—  
Central Park West at 62d St  
Edison Storage Battery Co—204-206 W 76th St  
Electric Garage—Central Park West & 62d St  
Electric Storage Battery Co The—100 B'way  
Exide Battery Depots Inc—2 West End Ave and  
64th St  
Gassaway F S Inc—212 E 54th St  
General Lead Batteries Co—1790 Broadway  
Gould Storage Battery Co The—30 E 42 St  
Phila Storage Battery Co—American Building  
Broadway and 58th St  
Storage Battery Supply Co—239 East 27th St



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Mechanical and Battery Parts (Concluded)

Walker Vehicle Co—531 W 46th St  
Willard Storage Bat Co The—228-30 W 58th St

### Buffers—Polishers

Fort Wayne Electric Works of the General Elec-  
tric—Co—30 Church St  
General Electric Co—30 Church St  
Green Electric Co The W—81 Nassau St  
Holtzer-Cabot Electric Co—83 Warren St  
Munning-Loeb Co—Canal & Sullivan Streets  
Robbins & Myers Co The—30 Church St  
Westinghouse Elec & Mfg Co—165 Broadway

### Clocks—Time Stamps and Recorders

Holtzer-Cabot Electric Co—83 Warren St  
Howard Electric Clock Co—Maiden Lane &  
William St  
Walker Bros & Haviland—50 Church St

### Coffee Mills

Boker H & Co Inc—101-103 Duane St  
Canton Electric Cut Co—11 E 125th St  
Coles Mfg Co—419 Long Beach Bldg  
Deer Co A J—55 West 63d St  
Hobart Mfg Co Inc The—24 East 21st St  
Howe Scale Co of N Y The—341 Broadway  
Jacobs Bros Co Inc—78 Warren St

### Drills and Grinders (Portable)

Chicago Pneumatic Tool Co—52 Vanderbilt Ave  
Cincinnati Electrical Tool Co—50 Church St  
Electro-Magnetic Tool Co—426 Broome St  
Hisey Wolf Machine Co—50 Church St  
Standard Electric Tool Co—30 Church St  
United States Electrical Co—50 Church St  
Van Dorn Electrical Tool Co—30 Church St

### Electro-Therapeutic and Dental Apparatus

American Sterilizer Co—Erie Pa  
American X-Ray Equip Co—401-405 E 31st St  
Edmonds Walter S—134 Congress St Boston  
Mass  
General Acoustic Co—Acousticon for the Deaf  
220 W 42d St  
Hanovia Chemical & Mfg Co—30 Church St  
Harper Oriphone Co (Instruments for the Deaf)  
—303-305 Fifth Avenue  
Hospital Supply Co The—53-55 Fifth Avenue  
Hotpoint Elec Heating Co—147 Waverly Pl  
Hughes Co The J W—110 E 23d St  
Johns-Manville Co H W—41st St & Madison Ave  
Kny-Scheerer Co The—404-410 West 27th St  
MacAlaster Wiggin Co—66 Broadway Cam-  
bridge Mass  
Meyrowitz E B Inc—237 Fifth Ave  
Metropolitan Eng Co—35 Vestry St  
Neel-Armstrong Co—29 W 34th St  
Pelton & Crane Co—Detroit Michigan  
Pittsburgh Electric Specialties Co—412 Eighth  
Ave (lamps only)  
Prometheus Elec Co The—232 E 43d St  
Ritter Dental Mfg Co—Fifth Ave Building

Sanax Co Inc The—125 E 23d St  
Shelton Elec Co—30 W 42d St  
Simplex Electric Heating Co—120 W 32d St  
Sorensen C N Co Inc—177 E 87th St  
Tiemann Co George—107 E 28th St 107 Park Row  
Trenaman Dental Mfg Co—107 W 25th St  
Victor Electric Co—110 E 23d St  
Vioray Mfg Co—915 Whitlock Ave Bronx  
Waite & Bartlett Mfg Co—252-258 W 29th St  
Wappler Elec Mfg Co Inc—173 E 87th St  
Westinghouse Electric & Mfg Co—165 B'way  
White Dental Mfg Co S S—5 Union Square  
Williams Roger—120 W 32d St  
Wolff Co Wm F—501 W 145th St

### Elevators—Dumbwaiters

American Elevator Co—117 Cedar St  
Burdett-Rowntree Mfg Co—119 W 40th St  
Burwak Elevator Co—216 Fulton St  
Dowdall Chas E Inc—152 W Broadway  
General Elevator Co—29 Broadway  
Gurney Elevator Co—62-64 W 45th St  
Jordan Bros Inc—74 Beekman St  
Maintenance Co The—417-421 Canal St  
National Elevator Co—62-64 W 45th St  
New York Elevator Co—50 Grand St  
Otis Elevator Co—11th Ave and 26th St  
Reedy Elevator Co—202 Ninth Ave  
Roberts Elevator Co Jas H—430 W Broadway  
Sedgwick Machine Works—128 Liberty St  
See Elec Elevator Co A B—220 Broadway  
Warner Elev Mfg Co—113 Warren St  
Warsaw Elevator Co—216 Fulton St  
Wheeler McDowell Elev Co—417 Canal St

### Fans, Blowers and Air Compressors

Allis-Chalmers Co—50 Church St  
American Blower Co—141 Broadway  
Beach-Russ Co—220 Broadway  
Boker H & Co Inc—101-103 Duane St  
Brunner Mfg Co—30 Church St  
Century Electric Co—30 Church St  
Clayton Air Compressor Works—115 Broadway  
Curtis & Carhart Inc—150 Chambers St  
Curtis Pneumatic Machinery Co—30 Church St  
Diehl Mfg Co—149 Broadway  
Eck Dynamo & Motor Co—46 W Broadway  
Federal Sign System (Electric)—649 W 43d St  
Fox Electrical Corporation—119 W 42d St  
Garner Ventilating Co—136 Liberty St  
General Electric Co—30 Church St  
Gerdes Theo R N—123 Liberty St  
Hunter Fan & Motor Co—114-118 Liberty St  
Ilg Elec Vent Co—13 Park Row  
Kandem Electric Co Inc—49 E 21st St  
Kinetic Engineering Co—41 Park Row  
Koithan & Pryor—39 Cortlandt St  
Kragh C W—184 Hudson Ave  
Laidlaw-Dunn-Gordon Co—115 Broadway  
Manhattan Electrical Supply Co—17 Park Place  
110 West 42d St, 127 West 125th St  
National Brake & Elec Co—165 Broadway  
Robbins & Myers Co The—30 Church St  
Smucker Arthur C—30 Church St  
Sorensen Co Inc C M—177 East 87th St  
Sprague Electric Works—527 W 34th St  
Strauss L L (For Rent)—74 W 125th St

# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Fans, Blowers, Air Compressors (Concluded)

Sturtevant B F Co—50 Church St  
Typhoon Fan Company—1544 Broadway  
Western Elec Co—463 West St & 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Westinghouse Traction Brake Co—165 B'way  
Wing L J Mfg Co—352-362 W 13th St

### Fire Alarm Systems (Interior)

Auto Call Co—30 Church St  
Automatic Fire Alarm Co—416 Broadway  
Edwards Co—Exterior St Bronx  
Leveridge Chas W Inc—133 Liberty St  
Metropolitan Elec Protective Co—130 W 26th St  
Ostrander & Co W R—22 Dey St  
U S E M Co—221 West 33rd St

### Fixtures and Portables

Adams Bagnall Co—30 Church St  
Bailey & Sons Inc—101 Park Ave  
Benjamin Electric Mfg Co—114 Liberty St  
Black & Boyd—17 E 47th St  
Caldwell Co Edward F—36-40 West 15th St  
Dale Lighting Fixture Co Inc—107-9 W 13th St  
Federal Sign System (Electric)—649 W 43rd St  
Findlay Mfg Co Robt—28 Warren St  
Falkenbach Mfg Co The—159 E 54th St  
Fox Electrical Corporation—119 W 42d St  
Gleason Mfg Co E P—37 Murray St  
Goetz A E—55 Barclay St  
Harlem Gas & Elec Fix Co—157-59 E 128th St  
Heather Co The R C—19-21 W 36th St  
Kandem Electric Co Inc—49 E 21st St  
Lighting Studios Co—220 W 42d St  
Livingston & Co J Inc—70 East 45th St  
McFaddin & Co H G—38 Warren St  
McHugh & Son Joseph P—9 West 42d St  
Mayer & Co Leon—1304 Boston Road  
Metropolitan Elec Supply Co—126 W 36th St  
Miller & Co Edward—68-70 Park Place  
Mitchell Vance Co The—294 Madison Ave  
Morris Iron Works Elmer P—136 Liberty St  
National X-Ray Reflector Co—21 W 46th St  
N Y Gas & Elec Appliance Co—569-571 B'way  
Parker Co The Chas—32 Warren St  
Pittsburgh Lamp Brass & Glass Co—35 W 23d St  
Roeser & Heidelberger Inc—54 W 37th St  
Shapiro & Aronson—20 Warren St  
Sibley & Pitman—19-21 W 36th St  
Silvestro C—4149 Park Ave Bronx  
Simes Co The—20 Rose St  
Sommer Lighting Fixture Co Inc—386 Second Ave  
Standard Lighting Fixture Co—61 Warburton Ave Yonkers N Y  
Sterling Bronze Co—18 East 40th St  
"Vase-Kraft" Studio—333 Fourth Avenue  
Wahle, Phillips Co—Park Ave & 40th St  
Walter G E—157 East 44th St  
Western Elec Co—463 West St and 105 W 40th St

### Street Fixtures

Central Foundry Co—90 West St  
Fox & Co John—253 Broadway  
General Electric Co—30 Church St  
Morris Iron Works Inc E P—136 Liberty St  
Mott Iron Works J L—118 Fifth Ave  
Westinghouse Electric & Mfg Co—165 B'way

### Globes—Reflectors

Dealing William—1 Hudson St  
Fox Elec Corp The—119 W 42d St  
Frink I P—24th St & 10th Ave  
Gillender & Sons Inc—19 Madison Ave  
Gleason-Tiebout Glass Co—200 Fifth Ave  
Haskins Glass Co—98 Park Pl  
Holophane Glass Co Inc—340 Madison Ave  
Hubbell Harvey Inc—30 East 42d St  
"Ivanhoe-Regent Works" of the General Elect Company—105 W 40th St  
Jefferson Glass Co—220 W 42d St  
Lighting Studios Co—220 W 42d St  
Macbeth-Evans Glass Co—143 Madison Ave  
Morgan & Sons John—61 East 9th St  
Northwood Co H—19 Madison Ave  
Organ Arthur—114 Liberty St  
Phoenix Glass Co—230 Fifth Ave  
Harry Pickhardt—98 Park Place  
Pittsb'g Lamp Brass & Glass Co—35-37 W 23d St  
Straight Filament Lamp Co—42 E 23d St  
Weeks Nelson—214 State St Brooklyn N Y  
Wilkinson Co—93 Underhill Ave Brooklyn N Y

### Heating and Cooking

American Elec Heater Co—Detroit, Michigan  
Bohn Elec Co C C—820 6th Ave  
Boker H & Co Inc—101-103 Duane St  
Cutler-Hammer Mfg Co The—144th St and Southern Boulevard  
Dover Mfg Co—30 Church St  
Federal Sign System (Electric)—649 W 43d St  
Fox Electrical Corporation—119 W 42d St  
General Electric Co—30 Church St  
Hotpoint Electric Heating Co—147 Waverly Pl  
Hughes Electric Heating Co—Chicago Ill  
Johns-Manville Co The H W (Heating Pads) 41st St and Madison Ave  
Manhattan Electrical Supply Co—17 Park Place, 110 West 42d St, 127 West 125th St  
Metropolitan Elec Prod Co Inc—101 W 42d St  
National Elec Utilities Corp—103 Park Ave  
Pelouze Mfg Co—32 Park Place  
Phelps Mfg Co—2 Astor Place  
Pittsburgh Elec Specialites Co—412 8th Ave  
Prometheus Electric Co The—232 E 43d St  
Reimers Mfg Co—130 Church St  
Sibley-Pitman Elec Corp—19-21 W 36th St  
Simplex Electric Heating Co—120 W 32d St  
Western Elec Co—463 West St and 105 W 40th St  
Wicks Electric Co—Cleveland Ohio  
Williams Roger—120 West 32d St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wood Electric Co C D—441 Broadway

### Ironing Machines

American Ironing Machine Co—46 E 41st St  
Bergbom & Roberg—46 E 41st St  
Fox Elec Corporation (Simplex)—119 W 42d St  
Wallace B Hart (Roma)—46 E 41st St  
Hurley Machine Co—147 W 42d St

### Horse Clippers

Gillette Clipping Machine Co—110 W 32d St

### Low Voltage Direct Current Bell Ringers

U S E M Co—301 West 37th St



# The New York Edison Company

## General Offices

### Irving Place & 15th St

*Telephone Stuyvesant 5600*

BRANCH OFFICES	TELEPHONE
424 Broadway	Canal 8600
126 Delancey St	Orchard 1960
10 Irving Place	Stuyvesant 5600
124 W 42d St	Bryant 5262
151 East 86th St	Lenox 7780
15 East 125th St	Harlem 4020
362 East 149th St	Melrose 9900

All showrooms open until midnight

EMERGENCY NIGHT AND SUNDAY  
CALL—FARRAGUT 3000

### *Territory Served by the Various Supply Offices*

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Sts, west of the Bowery and south of Catharine St

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and South of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



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JUNE, 1917

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## The Edison Monthly

**The Edison Monthly**  
Published by  
**The New York Edison Company**  
General Offices  
Irving Place and Fifteenth Street  
New York City

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N F BRADY, President  
JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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That the world's supply of nitrogen centers around far-off Chile is one of the bits of geographical information thrust upon this country by the present European war. More than two years ago scientists pointed out our dependence in that regard and steps were taken to guard against future shortage, both for munitions and for agricultural use.



The most widely discussed remedy was the establishment in this country of plants for the extraction of nitrogen from the air, a process that had once been tried at Niagara, and then later taken up in Norway. While this system, technically known as "fixation," is entirely a possible one scientifically, it was admitted to have great commercial disadvantages. First, the amount of electricity involved would be enormous, thus calling for the location of the plant in connection with large water power. Even at best the electrical requirements would make it an expensive undertaking. Furthermore, the nitrogen compound thus produced is deliquescent, and hence not available for agriculture, the output being limited to military uses.

On the other hand, the question of nitrogen for fertilizer remained unsettled. Most timely assistance on this score has been rendered by Professor Bucher of Brown University, who has recently announced the discovery of a new process to fill this want. The method, too, is electrical, but only in part, and does not call for the huge supply of current required in the fixation process.



Briefly stated, Professor Bucher's discovery is a new system for obtaining "oxamid," a richly nitrogenous compound desirable for agriculture. This substance is reached after a series of chemical reactions, assisted at one point by electricity, by means of which sodium cyanide is separated into metallic sodium and cyanogen. Since all the necessary ingredients, soda ash, iron ore, coke and hydrochloric acid, are cheap and plentiful, the new chemico-electrical nitrogen process bids fair to be of great commercial value.



"It was believed," according to the reporter on one of New York's evening papers, describing the fire in the City Hall cupola, "that crossed electric wires which supplied the current to the search-lights which were to have played every night during the stay of the Entente missions on the American, French and British flags might have caused the fire."



As a matter of fact, the cause of the fire as brought out in the investigation by Fire Marshal Brophy was care-

# The Edison Monthly

lessness on the part of a sheet metal worker who left a charcoal furnace burning when he went away. A spark blown from the furnace was caught in some rubbish where it smoldered and finally burst into flame.

Defective wiring and crossed electric wires have long been popular explanations when no other fire cause has been known. The City Hall incident is an example. Another such error occurred when a fire broke out in a public school in Brooklyn a few weeks ago. The fire was charged to defective wiring and it was not until one of the pupils confessed having thrown a match in a clothes closet that the real cause of the trouble became known.



In several of the big hotels in this city notices have been posted asking guests to be careful in the use of electric light. To waste light, so reads the announcement, is to waste coal, and that is a national resource which every good citizen should wish to have conserved in a time of national emergency.



It is a well known engineering fact that coal can be burned to much greater advantage in a big central station than it can in a comparatively small private plant. In the matter of engine economy, the central station has still greater advantage, units of 30,000 and 35,000 horse-power operating at far higher efficiency than the small machines employed in individual plants.

Any argument for the conservation of coal is also an argument in favor of

the central station. In keeping with this spirit of conservation many buildings are abandoning their plants to become users of Edison Service.



Tradition assigns the coupling of arc lights and policemen as guardians of the law to that time now nearly a generation ago when ex-President Roosevelt was one of the officials of the New York Police Department. An extension of this saying to include militiamen and flood lights is now in order, due to the present state of war.



The value of flood lighting in this connection has become markedly apparent since the severing of diplomatic relations between this country and Germany. Already orders for this type of unit have increased five hundred per cent; one firm reports fourteen hundred orders in a week. And now flood lighting apparatus is assisting army sentinels in their lonely vigils watching power-plants, munition factories, railroads and bridges throughout the country. A striking local example of this protective lighting is its use in guarding the bridges over the East and Harlem Rivers.



Central stations from the Atlantic to the Pacific have been called upon to provide extensions of their lines to meet this emergency. The rapidity with which these silent sentinels took up their posts speaks well of the spirit with which the electrical interests responded to the call.

## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

The Worth Statue, Flanked by Three Reproductions formed a Striking Group at Fifth Avenue and Twenty-fifth Street on the Occasion of New York's Reception to the French and English Missions



*Photographic Bureau of The New York Edison Company*

The Court of Honor and the Public Library Employed Several Types of Illumination in their Night Decorations



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**The Statue of Joan of Arc on Riverside Drive**



*Photographic Bureau of The New York Edison Company*

**The Lafayette Statue in Union Square Park**



*Photographic Bureau of The New York Edison Company*

**The Memorial in Honor of the Soldier and  
Sailor Heroes of Another Great War**



*Photographic Bureau of The New York Edison Company*

**"The World Must Be Made Safe for Democracy."  
The Washington Arch**

# Memorable Models ✓

## Part I

THE National Museum in Washington houses among its numerous treasures of art and science the largest collection of electrical relics in the world. Made up of more than 70,000 objects this collection includes models, drawings, letters and autographs, representing the march of electrical development in this country. To give a glimpse of the history of this collection and its contents is the purpose of the present and succeeding article. But to do this one must first go back to the Patent Office, father of the exhibits taken over by the Smithsonian Institution, to become part of the National Museum.

According to tradition, Alexander the Great organized the world's first technological museum, sending out a commission to study the industrial devices and process of other countries. Whether this be true, certain it is that from the time of Alexander well into the twentieth century, inventors were seldom looked upon with favor. They disturbed the established order of things; and why not let well enough alone? As a matter of fact, the first

industrial patent on record is an English one, dated 1440, issued to one George Bobham for a salt dredging machine. Oddly enough the first American patent also relates to a new method of salt manufacture. Issued in 1641 by the Massachusetts Bay Colony to Samuel Winslow, it required the inventor to set up his works within a year from the date of grant.

Very early in their career, Americans appear to have recognized the value of inventions, for in 1790 Congress passed a patent statute. In 1814, on the inglorious occasion of the capture of Washington, Dr William Thornton, the "keeper of patents, placed himself before the British guns to defend his records." With such traditions it is not surprising that inventions were easily accorded an honored place in the National Museum. That the collection relating to the history of electricity should be especially prized is to be expected, for whatever other countries have contributed to electrical theory America has admittedly led in its application. Of the six most prolific inven-



*Drawn by Edna Hood Lissak*

In 1831 Joseph Henry called his reciprocating electrical apparatus a "Philosophical Toy," but predicted that at some future time it might be applied to a useful purpose.



## The Edison Monthly

tors on the Patent Office records, three are leading figures in the electrical world—Edison, Elihu Thomson, and Westinghouse.

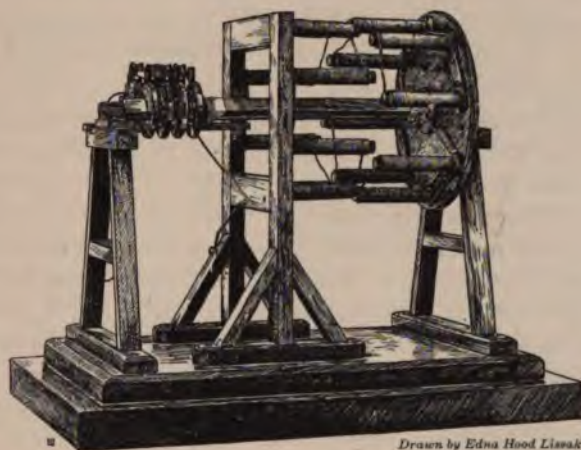
There on the shelves stand the models secured from the Patent Office, treasures bequeathed to the nation by the makers themselves or by their relatives, curious designs in wood and wire symbolizing the hopes and labor of many of this country's noted men.

Including relics of Joseph Henry, S F B Morse, Field, Bell, Maxim and Edison, as well as geniuses of a lesser fame, the entire assemblage spells out the history of electricity in science and industry.

But the relation of the National Museum to electrical science is not limited to the possession of relics. The first Secretary of the Smithsonian was the foremost theoretical electrician that America has produced, Joseph Henry, whose experimental devices serve as foundation for the electrical collection. The third Secretary, the late S P Langley was best known as a pioneer aviator but previous to this he devised the system of electric time-transmission for railroads, and invented electrical instruments for use in astronomical research.

At this point a few words about the Museum itself must find place. It is somewhat startling to realize that the United States owes its national museum indirectly to a foreigner. In 1829 James Smithson, an English gentleman-scientist who had a personal grievance against monarchical

government, died, leaving his entire fortune to the infant republic across the water. He had never visited this country, nor had he any acquaintance with Americans. The estate amounted to more than \$500,000, a princely gift in those days, with which "to found at Washington, under the name of the Smithsonian Institute, an establishment for the increase and diffusion of knowledge among men."



Invented by Jacobi in 1834, this Motor Was Used on the Neva River in Russia to Propel a Twenty-eight-Foot Boat

But did America with one voice rise to acclaim this notable gift to science? Truth compels us to admit that for nearly a decade the Smithson bequest lay untouched, a sort of financial white elephant in the United States treasury. A few Congressmen wanted to use the Smithson bounty for an "agricultural farm;" John Quincy Adams insisted on an astronomical observatory; Andrew Johnson advocated transforming the projected scientific institution into "Washington University for the Benefit of Indigent Children of the District of Columbia." Luckily none of these plans succeeded,



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and in 1846 the act of establishment was passed by which the Smithsonian was founded to embody such features as a national museum, library, art gallery, scientific research, lectures, and so forth. The planning of a suitable structure devolved upon James Renwick of New York, known as the architect of Grace Church and St Patrick's Cathedral.

Several of the original activities of the Smithsonian, notably the Weather Bureau, afterwards became government functions.

Somewhat in this way the "national museum" later became a distinct institution, supported by the government although its affairs have always been administered by Smithsonian officials, the assistant secretary there generally becoming executive of the Museum. By act of Congress 1846, the Smithsonian was designated as "the only lawful place of deposit of all objects of art, of foreign curiosity,



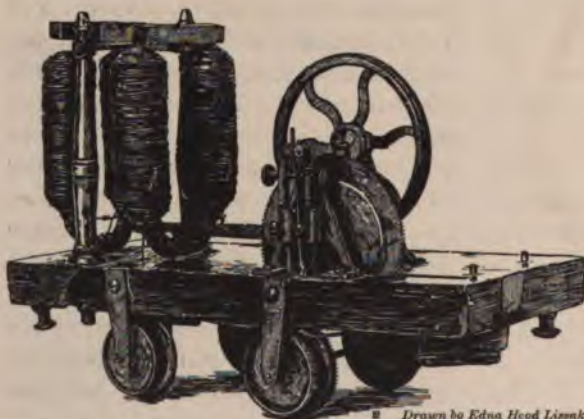
*Drawn by Edna Hood Linnak*

On May 3, 1896, this Motor was Operated in New York by Current Transmitted from Niagara Falls Over the Wires of the Western Union Telegraph Company

all objects of natural history" and so forth, belonging to the United States. In 1875 the name "National Museum" was officially recognized by usage in an act of Congress, and when in 1876 large collections were obtained from the Centennial Exposition, Congress authorized the erection of a separate building. There are now three museum buildings and a fourth is in course of construction.

Such then was the evolution of the National Museum, over the destinies of which Joseph Henry presided from 1846 till his death in 1878.

Because of the natural tendency to laud the inventor at the expense of the theorist, Henry, in spite of international recognition has never been a popular electrical hero like Morse or Edison. Yet as Henry's experimental apparatus formed the nucleus of the museum's collection of electrical relics, so on his work is based the development of telegraphy, the motor and the magnet.



*Drawn by Edna Hood Linnak*

The Colton Electric Motor Invented by G Q Colton in 1840 was the First to Use the Railroad Tracks as Part of the Circuit

## The Edison Monthly

The industrial value of Henry's lifting magnet was quickly appreciated, and in 1833 its ability to separate iron ore was demonstrated. The new system was installed by the Penfield Iron Works in the town on Lake Champlain which was thereupon named Port Henry in the inventor's honor. Here it was that Thomas Davenport bought the magnet that he used to construct the first rotary motor. Appropriately enough, Henry's magnets and Davenport's model are ranked among the earliest electrical treasures of the National Museum.



The Electric Regulating Lamp, Patented  
by Nathaniel S. Keith in 1882

### Electric Cobbling

IN these times of enforced economy, it is not surprising to hear of a whole company going in for shoe repairing. Such an establishment is now in operation by Robertson and Sons at 118 William street.

The shop, which occupies an entire loft has the look of a prosperous manufactory. Long series of electrically driven machines extend the length of the building; bench work lighted by electricity has its particular space; an up-to-date office fills a corner near the entrance; and a waiting room at the head of the stairs accommodates a public whose shoes, substituted at the time by carpet slippers, are undergoing repairs on the machines within.

Electrical interest centers chiefly about the stitching and finishing apparatus. The former are clumsy looking affairs containing three or four times as much mechanism as one would imagine necessary for working a needle and thread. Yet leather soles and not cloth are the things to be sewed here. The finishing machinery consists of wheels of sandpaper, brushes of various thickness and material, and burnishers, all revolving on a long shafting. This, however, is split up into separate control sections, each with its switch. The rapidity with which this resourceful device evens off a newly attached heel, smooths it, and polishes it would make an old fashioned cobbler doubt of the reality altogether. In operation, thanks to the availability of Edison Service, these mechanisms can at all times be depended upon whether the demand is at ordinary hours or after the ordinary working day.



## The Edison Monthly



*Fisk & Sawyer, Architects*

*Photographic Bureau of The New York Edison Company*

The Postal Life Building at Fifth Avenue and Forty-third Street. This Exceedingly Effective Office Structure Employs an Edison Supplied Equipment of 3,500 Lights and 238 Horsepower

## The Edison Monthly



*Montague Flegg, Architect*

*Photographic Bureau of The New York Edison Company*

Edison Service Aggregating 3,600 Lights and 333 Horsepower Supplies the New Astor Trust Building  
Recently Completed at Fifth Avenue and Forty-second Street



# Electric Patrols

THE New York Police Department during the past ten years has operated among its patrols an electric "G V" truck. This car, assigned to the Twenty-third precinct, has been in service practically every day since its purchase in 1907. Now it has been joined by four new patrols of the storage battery type, making what is perhaps the largest fleet of electric police patrols in this country. These new cars are stationed at the Thirtieth, Clinton, Fifth and Twentieth street precincts. The original car has been transferred to the Greenwich street precinct.

The added installation of electric patrols is one of the strongest possible endorsements of this type of vehicle, for it was the remarkable record of dependable service of the first electric that led the Department to make the recent increases. The G V in ten years of continuous service had shown what the electric could do. More than five years ago The Edison Monthly described the duties of this car in its daily routine of responding to the call of the patrolman on the beat. Now and again it has been called upon in some emergency to meet unusual endurance

tests, and always it has been equal to the occasion. It was the first vehicle at the Triangle fire, from which it transported many victims.

The modern police patrol with its rubber tires and noiseless motor which make its comings and goings almost unnoticed in the streets, is a startling contrast to the horse-drawn wagon of former days. Then the rattle of the wheels on cobble stones, the clatter of horses' hoofs and the noisy bell were sure to draw a curious crowd. And there are patrolmen today who recall a period before this when there were no such facilities for bringing in their prisoners. Then the nearest peddler's cart would be requisitioned to trundle a helpless drunk to the station, or when more secure means were necessary a grocer's wagon would be taken.



*Photographic Bureau of The New York Edison Company*

The Electric Patrol at the West Thirtieth Street Precinct is One of Four Recently Installed in New York City



## The Edison Monthly



The Charging Board for the Electric Patrol

Such was the state of affairs in New York until as recently as the early nineties, when the first horse patrols were purchased.

Then in 1907 came the movement to motorize the service. The G V, purchased that year was the first auto patrol in New York. It was followed a few years ago by several gasoline cars and the two types were tried out under varying operating conditions. The City's last order for auto patrols included cars of both types, the Lansden Company of Brooklyn securing the contract for the four electrics. These were completed and delivered during the past winter.

The distinct advantages possessed by the electric for answering emergency calls have made themselves felt keenly in the Police Department service. Drivers themselves are not reticent about their preference, for as several of them have said, the electric can be operated every moment of the day and night. It is ready to start at the turn of the controller, it never stalls, it responds to every demand in crowded traffic conditions, it is clean and makes for better sanitary conditions at the garage, while its low

operating costs and maintenance charges are important features in its favor.

Work such as the police patrol does is well calculated to bring out all that is in the car. Service is a twenty-four hour proposition, as the wagon is on call every minute of the day or night, and every day of the year. How well the electrics are standing up under this strain is illustrated by the satisfactory performance of the original G V car and by the work which the new electrics are doing. It is estimated that the patrols regularly cover anywhere from fifty to seventy-five miles a day and sometimes the daily mileage will reach as high as a hundred and ten to a hundred and fifteen miles. And this is in all kinds of weather, for the patrol cannot select the time to make its appearance but must come when called regardless of conditions.

As soon as a car returns to the garage recharging of the batteries is begun. There is no idle time as every minute is snatched for charging in order to keep the batteries up to top-notch efficiency. In this way are procured the splendid mileage records already mentioned.

The operating cost item of cars that receive such constant usage as police patrols is a very important one. A few years ago at a meeting of the Board of Estimate and Apportionment figures were presented showing the cost of the original electric patrol as compared with a gasoline patrol doing the same work.

Per mile for the gasoline car the estimate is approximately nine and a half cents, while for the electric car, seven and a half cents is the figure.

## The Edison Monthly

### Safety Honors Awarded

**I**N recognition of accomplishment in the effort toward the reduction of accidents the American Museum of Safety has just made its annual awards to corporations and individuals whose work during 1916 was particularly noteworthy.

The Anthony N Brady Memorial Medal was awarded to the Connecticut Company, operating a street railway system in Connecticut cities, in recognition of its efforts in conserving the health of the public and its employees. On the recommendation of President L S Storrs, the silver replica was awarded to S W Baldwin, and the bronze replica to W J Flickinger. Honorable mention was given to the Pacific Electric R R Company of Los Angeles, Cal, and the Interstate Public Service Company of Indiana.

The Scientific American Medal was awarded to the Pullman Company which originated the Dean steel frame to prevent telescoping of cars.

The Julius King Optical Company of New York was awarded the Louis Livingston Seaman Medal in recognition of the investigation by the Company of colored lenses for use in industry where blinding lights are employed, and for the development of goggles for protection against flying particles of stone or steel.

For its splendid system of protective devices the Commonwealth Steel Company of St Louis, Mo was awarded the Travelers' Insurance Company Medal.

The E H Harriman Memorial Medals, indicating the American steam railroad that has made the best

record in protecting the lives of its workmen and the traveling public, was awarded to the Alabama Great Southern Railway. For the year 1916, this Company had not a single fatality in train accidents. The silver replica awarded to that division of a railroad with the best record for accident prevention and health promotion was won by the Illinois Division of the Illinois Central R R. The bronze medal bestowed upon an individual who has been conspicuous in the promotion of safety and health was awarded to James A McCrea, General Manager of the Long Island R R, in recognition of his campaign against grade crossing carelessness.

### Brighter Sixth Avenue

**T**HE store front and window lighting demonstration recently made on Sixth avenue between Forty-eighth and Forty-ninth streets did much to point out the possibilities of brightening up ambitious thoroughfare sections. Such electrical arrangements as were made presented a wide and interesting variety.

The silk and millinery house of Falk and Dannenberg showed a display striking in every way. Its windows were dressed with widths of colored silks lighted by eight 150 watt C-2 nitrogen lamps contained in National X-Ray Jupiter reflectors. These reflectors set in rows were concealed by a valance of fringed crash. While a totally new and inviting aspect was given the store by this means, the cost per hour was but eight and a half cents.

Five 100 watt Mazda "B" lamps of amber color lent an unusual attraction to the Herfield windows at No



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856. Forms displaying the season's modes were set in proper relation to concealed rows of National X-Ray Helmet reflectors. While the effect in its softness and invitingness was exceptional the cost was but three and three-quarter cents per hour.

The artistic lighting of a windowful of meats and vegetables might at first be supposed somewhat difficult. However, the problem was

though in the majority of cases the lighting was fully as effective and artistic. At the close of the demonstration a committee of the Sixth Avenue Association under whose auspices the displays were made awarded cups presented by various people and organizations of prominence. Among these awards the Arthur Williams' prize for the best lighted window was given to the Oestreicher



*Photographic Bureau of The New York Edison Company*

**The Oestreicher Art Shop, Winner of the Arthur Williams Prize for the Best Lighted Window in the Recent Sixth Avenue Contest**

solved in the case of the Tingard Market by the use of eight 100 watt Mazda "C" plain lamps set in Holo-plane prismatic glass concentrating reflectors. The hiding of the light source was done by utilizing the translucent glass in the upper panels of the high window. The expense of operation in this instance was but five and a-half cents an hour.

Unfortunately space allows reference only to a few of the installations,

Art Shop, which used a single semi-indirect unit concealed behind a valance of linen to bring out the art displays in the two windows.

The Hippodrome prize for the best dressed window was secured by the Tingard Market.

Honorable mention was awarded to Mr C C Bohn, electrical contractor, whose windows displayed the exceptional possibilities of illumination by the new Day-Light lamps.



# Factory Safeguards

**P**ERFECT in all the details of shop layout, the two-story model factory now exhibited at The American Museum of Safety, 18 West 24th street, is an object lesson in accident prevention for industrial managers.

One half of this four-foot square factory shows a well arranged, well guarded shop; the other side illustrates how easily accidents may occur when precautions are not taken. The model is exhibited by the Accident and Liability department of the Aetna Life Insurance Company, and

is part of the exhibit which won the Grand Prize at the Panama-Pacific Exposition.

The model factory represents a general jobbing shop, the upper floor devoted to wood working, the lower to metal ware manufacture. A firewall divides all that is good from all that is bad in factory conditions. On the one side machines are unprotected and run with little regard for the safety of workmen. The lighting is of the old type of drop lights, which experience shows to be harder on the eyes than a diffused light. Wiring



*Photographic Bureau of The New York Edison Company*

The Aetna Company Exhibit of Safety Appliances at the American Museum of Safety. The Model Factory is in the Foreground

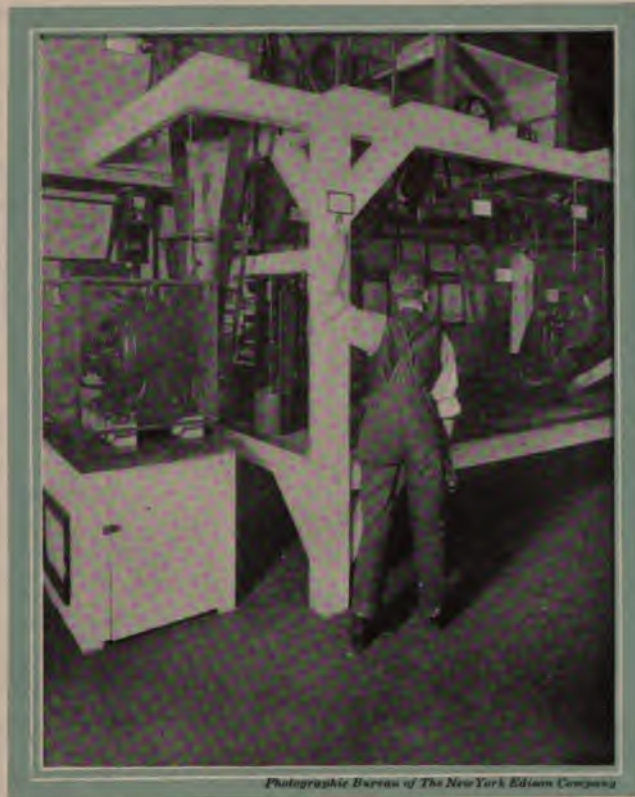
## The Edison Monthly

is unprotected. Other features so common to shops are the steep un-railed stairways, and the lack of safeguards and first aid equipment.

On the safe side all is different. Every machine is protected with angle iron and wire mesh guards, reducing to a minimum danger from contact with exposed parts. The particularly good feature of these guards is the fact that they are home-made and can be produced at little expense by any mechanic.

The lighting system is of the overhead inverted type which does away with "spot" illumination and substitutes general diffused light instead. All wiring is enclosed in metal conduit. In case of fire an electric alarm system gives warning, while green lights constantly shine above the doors and point the way to all-metal fire escapes. Not a detail has been omitted which could make for greater safety.

On a platform more than thirty feet long, supporting the major part of the Ætna exhibit, are actual machines with their many safety devices. Among others there are a jointer, punch press, bench drill for metal work, a lathe, wood-boring machine,



*Photographic Bureau of The New York Edison Company*

**Well Guarded Machines and Push-button Control are Important Factors in Reducing Industrial Accidents**

bench grinder, and various forms of belt shifters for tight and loose pulleys and cone pulleys.

A large percentage of accidents happen, often with fatal results, because it has been impossible to shut off the motor power quickly enough. By a "remote control" system it is possible to shut off the power instantly by merely pushing a button, as one would turn off a light. Control buttons may be placed in convenient parts of the factory while often it is found advisable to have each machine, as well as the general system, under individual control.

Most of the machinery is enclosed

## The Edison Monthly

in the homemade type of angle iron and wire mesh frame with hinged doors. A similar guard also encloses the main driving belt so that it is quite impossible for clothes or any part of the body to catch in the revolving machinery. This completes the Ætna Company's exhibit, one of the most valuable which the Museum has had in some time. It was secured through the co-operation of Mr David Van Schaak, director of the Bureau of Accident Prevention, and installed under the supervision of Mr G H Plain of the Ætna Company.

Another new safety device on exhibition is a booth-like affair for the protection of painters. It is called a Fumexer, and is used in combination with the Aeron System of painting and finishing which does away with the hand brush and substitutes for it an air gun. Painting under such conditions minimizes the danger of lead poisoning and other diseases which result from exposure to paint fumes.

The Fumexer is a steel box, enclosed on three sides and made in varying sizes from six by three feet to sixteen by nine. In the center is a turntable on which rests the article to be painted. Electric fans, the number varying with the size of the Fumexer, are installed at one end and serve to draw off the paint fumes, leaving the air pure in which the workman stands. As a result it has been found workmen's efficiency and productive power increase to a noticeable extent, while the amount of sickness shows a proportionate decrease.

Good light is another safety feature, for a portable spot light, which can be adjusted to throw its rays in any desired direction, is included.

### A Motor Smithy

"THE VILLAGE SMITHY" got into poetry by a narrow margin. A generation more and its laboring bellows and the very horses that stood in its "open door" would have disappeared.

For the modern shop is non-poetic though it suggests much to modern romancers on the lookout for the best working equipment. Among such romancers must be classed the thousand and one DeWitt Clinton boys who stop after school time to peer in at the big Barry smithy across the way.

The smith himself might well portray the brawny individual of the poem, but the patients in this case are not the four-footed ones of the old prints but ailing automobile bodies. In they come as fast as a competent corps of repair smiths can handle them, or rather the drawings and specifications for their broken parts.

While apparatus of novel sorts is needed for this modern type of blacksmithing, the old-time forge remains. Yet even here is an innovation. The "bellows roar," to be sure, but in this case by virtue of an electric motor on the floor close by connected with a blower device. A motor control giving seven intensities controls the draught for work of all sorts. A boy used to be hired by the day to pump this blower. The motor is said to save two dollars per diem, which are as good to the average 'smith as the next man. Motor power in connection with lathes and other "machining" apparatus place this automobile smithy further yet from its more poetic but less resourceful prototype of an earlier day.



## A Cup Apiece

MANY of the laws regarding the public health that have been formulated during the past decade, particularly those concerning the prevention of disease, have placed emphasis upon "individual," and this emphasis has been responsible for a remarkable improvement in public welfare. Not the least important and far-reaching application of such laws is to be found in the substitution, compelled by law, of individual drinking cups at public fountains for the common cup that so long was a menace to the health of every man, woman and child who used it. One of the satisfactions of present day life is the individual paper cup equipment in public buildings, in offices, factories, on railway trains and many

other places, making always obtainable an attractive drinking vessel that no one has used or even touched before.

When a separate cup is used to satisfy every individual thirst, the consumption naturally reaches huge proportions in the course of a year, and even during the few years since stringent laws were passed the demand for paper cups has given rise to an extensive manufacturing industry in which several concerns are engaged, turning out their product under various processes.

In this industry New York is represented by the Individual Drinking Cup Company, Incorporated, with factories at 220 West 19th street, for the making of its well-known "Health



*Photographic Bureau of The New York Edison Company*

A Paraffining Process is Still Used for Much of the Factory Output. Cups After Receiving Their Coating in an Electrically Heated Oven Are Dried on Revolving Trays

## The Edison Monthly

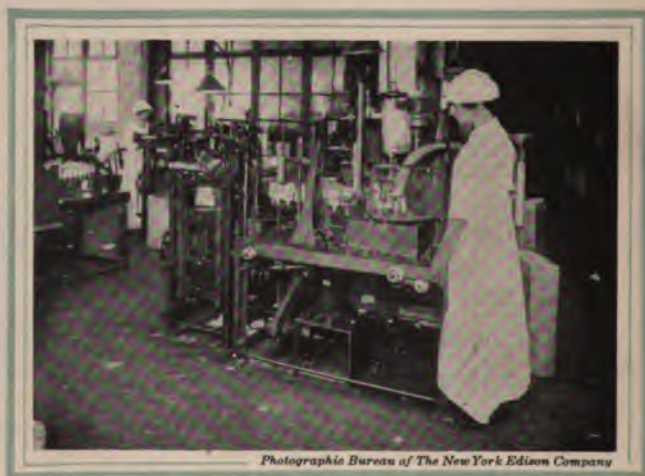
Kups." A large equipment of electrically operated machinery supplied with current by The New York Edison Company is employed in the factory. The motor installation totals sixty horsepower, with belt and shafts entirely eliminated by the use of individual motors for the different machines.

Paper made from sulphide wood pulp is used exclusively in the manufacture of these cups. Received in rolls, the paper is first cut into patterns for the cup sides and bottoms. The same electrical machine cuts and stamps the bottoms, turning out many hundreds in a short time. Two machines are employed in the cutting of blanks for the cup sides—one, electrically operated, which performs all operations automatically, even the unrolling of the paper; the other requiring an operator to lay upon a pile of paper sheets a steel die which is then forced down through the pile of paper under a pressure of 200 pounds to the square inch.

A cup coated with paraffine was the first to be produced by the company, and is still manufactured with the original machines. One hand operation is required with these machines—the pasting of the seams, which the operator closes over a forming cone, after she has applied glue to the blanks. Then the cups, still bottomless, are inverted

over holders on a moving tray which gives time for the paste to dry completely. As each cup reaches the end of the tray, it is released over a heated cone bearing on its apex the cut-out bottom, and here a cover closes down over the cup, pasting in the bottom and turning the brim. On an electric heater, semi-circular irons bear down upon the edge to give the bevel permanence, and through a sliding door the cup then passes into a paraffine box to be bathed in paraffine vapor.

The paraffine used in this box is a super-refined product, melting at a much higher temperature than ordinary paraffine and requiring several hundred degrees of heat for vaporization. Heat is provided by three electric stoves. The cup remains enclosed here but an instant, though long enough to receive a thorough coating; then it passes out through another sliding door to a drying tray. A slow revolution of this tray allows the paraffine to dry before the holder,



*Photographic Bureau of The New York Edison Company*

**Machines in Which Operations Are Entirely Automatic Turn Out the Non-Paraffined Cups**



## The Edison Monthly



Cup Bottoms Are Rapidly Stamped and Cut on a Large Electrical Machine

tipping at the proper point, drops the cup into a paper carton ready for shipment.

Non-paraffined cups are made from paper which has received at the mill special chemical treatment that renders it impervious to water. All processes in the manufacture of these cups are automatic. The paper blanks are picked from an elevator by glue fingers and dropped on a conveyor which carries them out to a forming cone arranged on a revolving turret. For the seam of the cup, the glue fingers have applied a mineral gum; for the securing of the bottoms, a vegetable paste which does not dry until the end of the operation.

As each blank comes under a cone on the turret, forming wings close up, folding the paper around the cone and holding it in place while a clamp closes down the seam. Then a miniature "arm" having almost lifelike action of "fingers" and "joints," picks off each cup in turn and drops it over a holder on which a bottom has been previously set. This bottom is forced up into the cup, pushing the glue ahead of it so that none remains in the

cup interior; then a cover, closing over, secures the bottom at the proper place and performs also the operation of turning the brim. Finally each cup is blown off by compressed air into the shipment container.

Though at no point in this operation does the cup pass through such intense heat as the paraffine box of the original machine, there is nevertheless sufficient heat in connection with the various operations to destroy any germs that may exist, and of course no hand touches the product at any time. With operators wearing clean white aprons, caps and gloves, and scrupulous care taken in cleanliness of machinery, the cups completely fulfil the purpose of providing a clean and safe drinking vessel.

The Individual Drinking Cup Company, Incorporated, supplies large quantities of the "Health Kups" to offices, factories and public buildings in New York City and also makes big shipments to all parts of the country. Moreover, the cups are now provided not only for drinking fountain purposes, but also for soda fountains, where in the serving of soft drinks they have proved pleasing to the public and profitable to the establishments.

### A Summer Idyl

The moon upon a summer's eve

Is pleasant for to spy,

With clouds an' wings of bats an'  
things

A-sailin' through the sky.

But when there ain't a bloomin' star

To bless the bally night,

It's then your eyes is quick to prize

This here electric light.

*Charles Mitchell*



# Edison Service for the Ansonia

THE recent adoption of Edison Service by the Hotel Ansonia furnishes further evidence of the progressive policy familiar to patrons of that well known house. New apparatus, new luxuries and features of house service have been adopted from time to time as their worth and popularity became recognized. And it was thus with central station supply. By this latest addition to its already admirable equipment the Ansonia may well be said to represent the last word in modern hotel science.

In common with various of the City's widely celebrated hostelries the Ansonia is practically a community under one roof. There are no less than fourteen hundred rooms, comprising three hundred and fifty suites. Within the building and at the ready command of guests are physicians, drug store, bank, a tailoring establishment, florist and cigar shops, dentists, barbers, manicures and hair-dressers, and a notary public. Sixteen elevators provide safe and rapid service for guests and for merchandise deliveries. Nothing, in short, would seem to be lacking in the pro-

vision of such comforts as make up the sum total of present day city life.

That electricity, in the form either of light or power, constitutes an essential part of these conveniences



*Photographic Bureau of The New York Edison Company*

The Main Lobby, while Exceedingly Rich in Ornament and Appointment, Preserves the Homelike Atmosphere Marking the Hotel as a Whole

need not be pointed out here to the reader. It cannot be denied that the hotel has long derived its current from a generating plant of its own, a measure considered at the time of the installation as a more or less inevitable expedient. However, an expedient, even a sizable building plant, is not a solution. As just pointed out, the management has been habitually on the watch for improved ideas. Its private plant, fortunately, had never been looked upon as a habit in itself. When, after due investigation into



## The Edison Monthly

central station estimates and advantages, those in charge had decided on a change, that change was made promptly and unhesitatingly. Edison Service, represented by a simple cable connection, was adopted forthwith and the cumbersome machinery of the electric plant was abandoned.

To attempt at this writing to go into a description of the famous hotel

light and air for every apartment along with housekeeping advantages unusual even in so modern and elaborately fitted a building form an inducement the force of which is appreciated by those whose applications for quarters may chance to be somewhat behind the seasonable period. A richness of appointment compatible with a certain coziness of

appeal from the capacious lounge with its Tea Rooms opening at either side to the privacy of the individual apartment present and have long since presented a charm little short of compelling.

There is, however, an innovation that should be spoken of which cannot be familiar to patrons even of a month ago.

Whether the prospect of Edison Service had anything to do with it would



The Pool in its Dimensions and Hygienic Safeguards is Typical of the Admirable Thoroughness with which the New Baths Have Been Equipped

would be only to inform where such information has long since been gathered at first hand. What the Ansonia is and offers in superior service and luxury are well enough known both among New Yorkers and the thousands who become thorough-going New Yorkers during the vacation season. The fact that with all its tremendous size and complex equipment the Ansonia possesses a distinctly homelike atmosphere would alone recommend it to the discriminating guest. The abundance of

perhaps be immodest to surmise here, but the fact remains that coincident almost with the introduction of that service the Ansonia installed what are said to be among the most complete baths in the country.

Their chief interest, from the electric standpoint, consists in a most remarkable electric equipment. As one would expect, the electric light bath features prominently in conjunction with the use of the newest vibrator devices for massaging.

And apart from the complete elec-



## The Edison Monthly

tric bath one can also obtain local treatment with light in its various forms. The providing of electric water baths is new to bathers who may be supposed to have run the

bathing gamut. The treatment consists of a bath and massage in one, as the water by means of successive chargings of current serves to contract and expand the muscles.



*Photographic Bureau of The New York Edison Company*

Such is the Principle Underlying the Construction of the Ansonia that every Suite has an Abundance of Light and Ventilation. The Ansonia is now a User of Central Station Electric Supply

## The Edison Monthly

### My Mazda

A shadow has fallen upon my home:  
That which did most to brighten it  
Has expired.

O my Mazda!  
Fairest bulb that ever blew out!  
More luminous than ordinary lamps,  
With their vulgar black kinks,  
That seek enviously but vainly to copy your splendor  
in carbon;  
How dazingly did you spread forth your candlepower  
In zigzag festoons,  
In effulgent garlands of tungsten!

You were but six months old;  
Frail, exquisite,  
Created of clearest glass,—  
As innocent as when you were first brought to me  
Swaddled in tissue paper.

I raised you tenderly, and placed you  
In my chiefest socket,  
Directly in the middle of the living room;  
With the hope that your career there  
Might be long and brilliant.

But yesterday,  
When you were thought to be far above,  
There was sudden uprising  
On the part of our African auxiliary,  
And you succumbed;  
In that horrible shock of collision  
Your precious light  
Fizzled out.

O my Mazda!  
You are to me still a shining example.  
For while you lived,  
You were continually bright and cheerful;  
And now  
You are not obliged to burn  
Uncomfortably.

*Lawton Mackall*



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Motors

#### General Uses

Allis-Chalmers Co—50 Church St  
Boker H & Co Inc—101-103 Duane St  
Bell Electric Motor Co—30 Church St  
Burke Elec Co—30 Church St  
C & C Electric & Mfg Co—90 West St  
Century Electric Co—30 Church St  
Colonial Fan & Motor Co—150 Chambers St  
Crocker-Wheeler Co—30 Church St  
Diehl Mfg Co—149 Broadway  
Eck Dynamo & Motor Co—46 W Broadway  
Electro-Dynamic Co The—Ave A Bayonne N J  
Emerson Elec Mfg Co The—50 Church St  
General Electric Co—30 Church St  
Holtzer-Cabot Electric Co—83 Warren St  
Imperial Elec Co (Watson)—253 Broadway  
Lincoln Electric Co—149 Broadway  
Mechanical Appliance Co—154 Nassau St  
Northwestern Mfg Co—243 Canal St  
Peerless Elec Co—147-9 W 35th St  
Reliance Electric & Engineering Co—90 West St  
Robbins & Myers Co The—30 Church St  
Sprague Electric Works—527 West 34th St  
Triumph Electric Co—114 Liberty St  
Wagner Electric Mfg Co—30 Church St  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

#### Inspection—Maintenance—Repairs

Blackall & Baldwin Co—39 Cortlandt St  
Bogart Co A L—55 Barclay St  
Borne Chas A Co Inc—35-37 Wooster St  
Comstock Associate Co—101 Park Ave  
Conlan Electric Co—43 Murray St  
Elec Machine Tool Co—50 Church St  
Elec Motor Insp & Rep Co—1 Beekman St  
Elec Repair Co—548-550 W 23d St  
General Electric Inspection Co—237 Fulton St  
Globe Elec Cont & Rep Co The—434 Broome St  
Graham Bros Co—585 Hudson St  
Hammill John—55 Ann St  
Harlem Electric Co—6 E 116th St  
Jordan Bros Inc—74 Beekman St  
Kelting Electric Co—119 Pearl St  
Leve Robert E—19 E 32d St  
Maintenance Co The—417 Canal St  
National Electric Co—89 Centre St  
Naumer Elec Co—96 Beekman St  
Naylor & Newton—243 Canal St  
Reilly Maintenance Corporation—122 Centre St  
Russell & Co—56 W 45th St  
See Van Dyck C—39 Cortlandt St  
Weidman Geo Elec Co—35-37 Rose St  
Westinghouse Elec & Mfg Co (Repair Shop)—  
528 W 25th St

#### Starters and Controllers

Allen-Bradley Co—50 Church St  
Automatic Switch Co—4 White St  
Curtis-Carhart Co Inc—150 Chambers St  
Cutler-Hammer Mfg Co The—50 Church St  
Electric Controller & Mfg Co The—50 Church St  
General Electric Co—30 Church St  
Industrial Controller Co—50 Church St  
Rowan Electric Mfg Co—39 Cortlandt St  
Ward Leonard Electric Co—Mount Vernon N Y  
Westinghouse Elec & Mfg Co—165 Broadway

#### Used Motors

Archer & Baldwin—114-118 Liberty St  
Cutter Co F B—50 Church St  
Duzets & Son—546 W 45th St  
Graham Jas A—30 Church St  
Holcomb & Co D S Inc—241-3 Canal St

Klein & Co—208 Centre St  
Oneida Elect Co—313 Canal St

### Office Accessories

Edison Dictating Machine—Orange N J 114  
Liberty St N Y C  
Ensign Elec Calculating Machine—280 B'way  
"The Dictaphone"—83 Chambers St  
The Hooven, Owens, Rentschler Co—Woolworth  
Building  
"The Millionaire" Elec Cal Mach—1 Madison Ave

### Pumps

Beach-Russ Co—220 Broadway  
Blackall & Baldwin Co—39 Cortlandt St  
Boker H & Co Inc—101-103 Duane St  
D'Olier Centrifugal Pump & Machine Co—503  
Morris Building Philadelphia Pa  
Goulds Mfg Co—16 Murray St  
Holland Machine Co—90 West Broadway  
International Steam Pump Co—115 Broadway  
Lea-Courtenay Co—90 West St  
Platt Iron Works The—50 Church St  
Quimby William E Inc—548 West 23d St  
Rider Ericsson Engine Co—20 Murray St  
Rumsey Pump & Mach Co—75 Warren St  
Twinvolute Pump and Mfg Co—30 Church St  
Western Elec Co—463 West St and 105 W 40th St

### Refrigeration

Automatic Refrigerating Co—50 East 42d St  
Brunswick Refrigerating Co—30 Church St  
Electrical Refrigerating Co Inc The—Woolworth  
Building  
Johns-Manville Co II W—41st St & Madison Ave  
Montclair Refrigerating Corp—Woolworth Bldg  
Shipley Const & Sup Co—Columbia St Bklyn N Y  
Triumph Ice Machine Co—30 Church St  
Voss Ice Mach Works—242-252 East 122d St

### Signs

B & B Sign Company—347 Fifth Ave  
Bilt-Well Sign System (Elec) 113-115 E 15th St  
Bofinger Bros—146 East 42d St  
Commercial Sign Co Inc—440 W 46th St  
Empire Elec Sign Co—162 East 118th St  
Federal Sign System (Electric)—649 W 43d St  
Fricker Frederick—430 11th Ave  
Frink I P—24th St and 10th Ave  
Gude Co O J—220 W 42d St  
Halpern Bros—210 West 26th St  
Manheimer Co The—162 W 34th St  
Martin P J—306 W 53d St  
Mechling Charles J—477 Willis Ave  
Mercantile Adv Co—17 Battery Pl  
Norden Electric Sign Co Inc—311 W 40th St  
Opal Sign Co—254 Tenth Ave  
Pisch Electric Sign Co Inc The—415 W 48th St  
Prismlyte Co The—8 St Felix St Brooklyn  
Snow & Co—531 W 46th St  
Rice Geo H Co Inc—481-87 Sterling Pl Bklyn  
Strauss & Co—209 W 48th St  
Strauss L L—74 W 125th St  
Universal Elec Stage Ltg Co—240 W 50th St  
Wertheimer Sign Co—558 W 36th St

# The New York Edison Directory

## Manufacturers and Agents (Concluded)

### Sign Flashers

**Betts & Betts**—511 W 42d St  
**Phelps Mfg Co**—729-31 Broadway  
**Reynolds Elec Co**—1123 Broadway

### Supply Dealers

#### Manhattan

**Alpha Elec Co Inc**—116-118 W 29th St  
**Baily Elec Supply Co**—62 Vesey St  
**Bohn Elec Co C C**—820 6th Ave  
**Bunnell & Co J H**—32 Park Pl  
**Burnet Co The**—69 South St & 1800 Park Ave  
**Central Electrical Supply Co**—4 West 16th St  
**Crannell, Nugent & Kranzer Inc**—110 W 30th St  
**Fox Electrical Corporation**—119 W 42d St  
**Fullerton Electric Co**—109-115 W 26th St  
**Goetz A E**—55 Barclay St  
**Hartt & Morison**—780 Sixth Ave  
**Killoch Co David**—57 Murray St  
**Latham & Co E B**—4 Murray St  
**Leahy John J**—48 Dey St  
**Leveridge Chas W Inc**—133 Liberty St  
**Manhattan Electrical Supply Co**—17 Park Pl  
     110 West 42d St, 127 West 125th St  
**Metropolitan Elec Products Co**—101 W 42d St  
**Metropolitan Elec Supply Co**—126 W 36th St  
**N W Elec Equip Co**—35 Vestry St  
**Ostrander & Co W R**—371 Broadway  
**Public Electrical Supply House**—62 Essex St  
**Royal-Eastern Elec Sup Co**—114 W 27th St  
**Sibley-Pitman**—19-21 West 36th St  
**Smith J M & Son**—4 E 8th St  
**Thomas & Betts Co**—105 Hudson St  
**Western Elec Co**—463 West St and 105 W 40th St

#### Bronx

**Bronx Elec Supply Co The**—612 Melrose Ave  
**Royal Eastern Supply Co The**—506 Willis Ave  
**Webber Supply Co The**—558 Melrose Ave

### Electro-Plating Apparatus and

#### Supplies

**Green Electric Co W**—81 Nassau St  
**Munning-Loeb Co**—50 Church St

### Specialties

**Aladdin Lamp Corporation**—52 Vanderbilt Ave  
**Bonnell & Co W A**—132 Church St  
**Bromley-Merseles Mfg Co** Dishwashing Machines—1328 Broadway  
**Brown Elec Co Wm S**—3 W 29th St  
**Chapin Co Chas E**—201 Fulton St  
**Corliss Carbon Co**—114 Liberty St  
**Cutler-Hammer Mfg Co The**—50 Church St  
**DeVeau Tele Mfg Co**—472 18th St Bklyn N Y  
**Electric Fountain Co The**—348 W 42nd St  
**Fox Electrical Corporation**—119 W 42d St  
**Frantz Premier Distrib Co Inc**—119 W 42d St  
**Fulton-Bell Co**—105 W 40th St  
**Howe Scale Co of N Y The**—341 Broadway  
**Kirkman Eng Corporation**—237 Lafayette St  
**Mercantile Adv Co**—17 Battery Place  
**Organ Arthur**—114 Liberty St  
**Pittsburgh Electric Spec Co**—412 8th Ave  
**Shelton Electric Co**—30 E 42d St  
**Universal Elec Stage Light'g Co**—240 W 50th St  
**Wallace Novelty Co Inc The**—25 E 24th St  
**Ward Leonard Electric Co**—Mount Vernon N Y  
**White J H Mfg Co**—111 No 3rd St Brooklyn  
**Wicks Electric Co**—Cleveland Ohio

### Switch and Distributing Boards

**Anderson Mfg Co A & J M**—135 Broadway  
**Automatic Switch Co**—4-6 White St  
**Crouse Hinds Co**—30 Church St  
**Empire Eng'g & Supply Co**—1 Dominick St  
**General Electric Co**—30 Church St  
**Johns-Manville Co H W**—Mad Ave & 41st St  
**Krantz Mfg Co**—160 Seventh St Bklyn  
**Le Baron B Johnson**—Madison Ave & 41st St  
**Metropolitan Elec Mfg Co**—Long Island City  
**Metropolitan Engineering Co**—35 Vestry St  
**Pringle Elec Mfg Co**—39 Cortlandt St  
**Rall Frederick**—19 Park Pl  
**Sprague Electric Works**—527 W 34th St  
**Trumbull Electric Mfg Co**—114 Liberty St  
**Walker Electric Co**—50 Church St  
**Western Elec Co**—463 West St and 105 W 40th St  
**Westinghouse Elec & Mfg Co**—105 Broadway

### Vacuum Cleaners

**Bohn Electric Co C C (Santo)**—820 Sixth Ave  
**Comstock Associate Co (Sturtevant)**—101 Park Avenue  
**Duntley Products Sales Co**—295 Fifth Ave  
**Federal Sign System (Electric)**—649 W 43d St  
**Fox Electric Corp (Hoover)**—119 W 42d St  
**Frantz Premier Distrib Co Inc**—119 W 42d St  
**Hartt & Morison**—780 Sixth Ave  
**Hurley Machine Co (Thor)**—147 W 42nd St  
**Innovation Electric Co**—585 Hudson St  
**Metropolitan Elec Products Co**—101 W 42d St  
**Muenzen Specialty Co**—131 W 42d St  
**Ohio Co The**—1463 Broadway  
**Regina Co**—47 West 34th St  
**Richmond Radiator Co**—1480 Broadway  
**Sloane W & J (Invincible)** Fifth Ave and 47th St  
**Spencer Turbine Cleaner Co**—101 Park Ave  
**Tuec Company The**—1457 Broadway  
**Univ Vacuum Cleaner Maint Co**—47 W 38th St  
**Western Elec Co**—463 West St and 105 W 40th St

### Vibrators and Hair Dryers

**Barker Metal Furniture Co**—255 Canal St  
**Fox Electrical Corporation**—119 W 42d St  
**Hartt & Morison**—780 Sixth Ave  
**Jorgensen John**—114 Liberty St  
**Kandem Electric Co Inc**—49 E 21st St  
**Manhattan Electrical Supply Co**—17 Park Place,  
     110 West 42d St, 127 West 125th St  
**Sanax Co In**—1c The 25 E 23d St  
**Shelton Elec Co**—30 E 42d St  
**Sibley-Pitman**—19-21 W 36th St  
**Western Elec Co**—463 West St and 105 W 40th St

### Washing Machines

**Brokaw-Eden Mfg Co (The Eden)**—119 W 42d St  
**Federal Sign System (Electric)**—649 W 43d St  
**Fox Electric Corp (Eden)**—119 W 42d St  
**Hart Wallace B (Arora) (Judd)** (1900) Cataract  
     —46 E 41st St  
**Home Devices Corp (Modern)**—Bush Terminal  
     Brooklyn  
**Hurley Machine Co**—147-157 W 42d St  
**National Sewing Machine Co**—290 Broadway  
**Northwestern Electric Equipment Co (Geyser)**—  
     35 Vestry St  
**Sibley-Pitman**—19-21 W 36th St  
**Wemlinger Co Inc The**—40 Whitehall St  
**Western Elec Co**—105 W 40th St and 463 West St

### Welders

**Lincoln Electric Co**—149 Broadway  
**Welding Materials Co**—114 Liberty St  
**Westinghouse Electric & Mfg Co**—105 Broadway  
**Winfield ElecWelding Machine Co**—50 Church St



# The New York Edison Directory

## Wiring and Installation Contractors

### West of Broadway and Fifth Avenue

Amsterdam Ave 868—Joseph Rice  
 Amsterdam Ave 943—P D Dunn  
 Amsterdam Ave 984—Sam A Grice & Co  
 Amsterdam Ave 1768—The Lincoln Electric & Repair Shop  
 Amsterdam Ave 1989—Manhattan Electrical Maintenance Company  
 Broadway 212—Charles S Borger  
 Broadway 335—Park Sullinger  
 Broadway 853—J Menkes  
 Broadway 1123—William J Shore  
 Broadway 1133—Van Wagoner-Linn Cons Co  
 Broadway 1170—Alliance Electric Co Inc  
 Broadway 1270—Croker National Fire Prevention Engineering Company  
 Broadway 1402—Gagen & Butler  
 Broadway 1929—F W Astarita  
 Broadway 1931—Bull-Duroy Electric Co  
 Broadway 1960—E May Inc  
 Broadway 2304—C E MacCabe  
 Broadway 2304—Frank B Widmayer Co  
 Broadway 2382—Howard S Beidleman  
 Canal St 313—Oneida Electric Co  
 Canal St 417—G E Engineering Co  
 Canal St 417—The Maintenance Co  
 Christopher St 41—W Buch  
 Church St 30—L K Comstock & Co  
 Church St 50—William Braun  
 Columbus Ave 220—Thomas F Carr  
 Columbus Ave 348—H Blumenstetter  
 Columbus Ave 517—Samuel Millinger  
 Columbus Ave 549—Hoffman & Elias  
 Columbus Ave 847—Mariposa Electric Co  
 Cortlandt St 26—Cleveland & Ryan  
 Cortlandt St 39—Blackall & Baldwin Co  
 Cortlandt St 84—Bleye Elec Co  
 Duane St 172—Jas F Hughes Co  
 Eighth Ave 461—A J Buschmann Co  
 Eighth Ave 461—Edward B Stott & Co  
 Eighth Ave 766—H Lauer & Co  
 Fifth Ave 75—H M Walter  
 Fifth Ave 320—J P Hall-Smith Co  
 Fifth Ave 503—Alfred U Keedwell & Co  
 Fulton St 237—General Electric Inspection Co  
 Greenwich St 183—Thomas & Johnson  
 Greenwich St 255—Garret M Ross  
 Hudson St 585—S Edw Eaton & Co  
 Liberty St 120—S Arthur Brown & Co  
 Liberty St 120—Watson-Flagg Engineering Co  
 St Nicholas Ave 1048—George E Ryan Co Inc  
 Sixth Ave 440—A Goldman & Co Inc  
 Sixth Ave 617—Zenker & Siems  
 Sixth Ave 632—John J Finn  
 Sixth Ave 819—Thomas Hindley & Son  
 Sixth Ave 820—C C Bohn Electric Co  
 Sixth Ave 882—P McGunnigle & Son  
 Sixth Ave 906—R A Schoenberg & Co  
 Sixth Ave 1009—John T Whitehead & Son  
 Seventh Ave 360—Louis Freund  
 Seventh Ave 422—Franklin Elec Co  
 Seventh Ave 2286—Nathan Zolinsky

Tenth Ave 466—George E Valley & Bros  
 Tenth Ave 578—Chas F Dunker  
 Thames St 27—McLeod Ward & Co  
 Varick St 143-145—H C Griffin & Co Inc  
 Vesey St 53—F A Frey  
 West Broadway 170—J S Bihin  
 West Broadway 490—X L Machine & Elec Co  
 West End Ave 165—F W Astarita  
 West St 116—Knickerbocker Electric Co  
 West 12th St 101—C S Harris  
 West 17th St 108—Manhattan Elec Cont Co  
 West 17th St 142—Harry A Hanft  
 West 26th St 101—Pruver Electric Co  
 West 30th St 114—Tucker Elec Construction Co  
 West 31st St 109—Jandous Elec Equip Co Inc  
 West 33d St 221—E-J Elec Installation Co  
 West 34th St 20—Harry Alexander Inc  
 West 34th St 110—Nimis & Nimis Inc  
 West 35th St 147-49—N Y Elec Installation Co  
 West 39th St 42—J Fischer Electric Co  
 West 40th St 105—Lord Electric Co  
 West 40th St 337—William W Ritchie  
 West 40th St 447—Manhattan Engineering Co  
 West 40th St 458—George L Ford  
 West 42d St 25—William D Munro  
 West 42d St 112—Oberg Blumberg & Bleyer  
 West 42d St 121—Conduit Wiring Co  
 West 42d St 229—M Schweiger & Co Inc  
 West 42d St 314—A & A Electric Co  
 West 45th St 56—Russell & Co  
 West 45th St 100—Robert Bernecker  
 West 48th St 209-13—Strauss & Company Inc  
 West 53d St 207—Wm A Brown  
 West 53d St 243—W E Nichols  
 West 59th St 401—John T Williams Co  
 West 72d St 176—Kaufman & Burkert  
 West 83d St 121—C A Christesen  
 West 99th St 146—John A Marcato Co  
 West 100th St 204—L Koehler  
 West 116th St 138—P Simpson  
 West 116th St 227—Lewis S Davis  
 West 125th St 71-75—H Kaufman  
 West 125th St 74—Lawrence L Strauss  
 West 125th St 215—M J Heller Elect Co  
 West 125th St 247—Planet Elec & Sup Co  
 Wooster St 12—Durbrow & Hearne Mfg Co

### East of Broadway and Fifth Avenue

Beekman St 74—Jordan Bros Const Co  
 Bible House 78—Thos C Miller  
 Beaver St 42—Hanover Elect Co  
 Broome St 114—B H Weinberg  
 Broome St 434—The Globe Electric Contracting & Repairing Company  
 Cedar St 16—Wm Truswell & Son  
 Chrystie St 155—A Fox  
 Dover St 8—Havazer Electric Co Inc  
 East Houston St 93—I Berkowitz  
 East 3d St 48—B Ackerman Co  
 East 3d St 136—H A Schreiber  
 East 5th St 416—Frank Bloom  
 East 8th St 4—J M Smith & Son  
 East 8th St 48—American Pressing Iron Co  
 East 13th St 2—B W Sandbach & Co  
 East 14th St 409—S Newberger

# The New York Edison Directory

## Wiring and Installation Contractors (Concluded)

### East of Broadway and Fifth Ave (Con)

East 15th St 6—Geo D Beinert Inc  
 East 21st St 22—The Shultz Electric Co  
 East 22nd St 27—Hunt & Morgan  
 East 23d St 42—Kimball Elec Construction Co  
 East 23d St 131—G C Kastner  
 East 25th St 122—Isidor Fajans  
 East 28th St 114—Burkart Elec Co  
 East 28th St 34—S H Klein  
 East 28th St 118—John Jay Gallagher Co Inc  
 East 28th St 118—Covic Electric Co  
 East 28th St 132—Miller Electric Co  
 East 28th St 159—Behlert Elec Co  
 East 30th St 20—I Hoffman & Co  
 East 32nd St 19—Robert E Leve  
 East 34th St 144—S W Electric Co  
 East 35th St 217-19—Manhattan Engineering Co  
 East 37th St 207—Reis & O'Donovan Inc  
 East 45th St 70—Edwards Elec Contracting Co  
 East 45th St 70—J Livingston & Co Inc  
 East 45th St 70—Peets & Powers  
 East 53rd St 152—Alexander B Simpson  
 East 57th St 227—Morris Levi & Co  
 East 59th St 57—Stanley Ruth & Co  
 East 72d St 167—Edward J Dustman  
 East 94th St 168—B Gliddon  
 East 125th St 77—Peter Jansen  
 Essex St 62—Nathan J Feinberg  
 First Ave 1481—Edward Zenker  
 Fourth Ave 373—Hatzel & Buehler Inc  
 Frankfort St 26-30—J F Bidstrup & Co  
 Frankfort St 32-34—John Hammill  
 Front St 124—Charles Davidson  
 Fulton St 44—Ernest Klein & Bro  
 Fulton St 44—H A Murcke Co  
 Fulton St 62—Fulton Electric Co  
 Grand Central Terminal 1735—Geo V Cooper  
 Great Jones St 5—MacNutt & Steinert  
 Great Jones St 38—August Weber  
 John St 84—Alfred Whitely  
 John St 107—William Englert  
 Lexington Ave 47—William Hass  
 Lexington Ave 186—R E Denike Inc  
 Lexington Ave 368—E F Rusie  
 Lexington Ave 405—Nathan C Solomon  
 Lexington Ave 605—Bauer & Boland  
 Lexington Ave 767—Frise & Jantzer  
 Lexington Ave 1026—Kendelhardt & Morris Inc  
 Lexington Ave 1110—The M & C Electric Co  
 Lexington Ave 1245—Julius E Woelfe  
 Lexington Ave 1296—M Strompf  
 Lexington Ave 1307—Kirschen Bros  
 Lexington Ave 1438—Kenehan & Clancy  
 Madison Ave 1—Thomas L Dillon  
 Madison Ave 712—D M Rousseau  
 Madison Ave 826—N C Haynes  
 Malden Lane 91—Weber & Jones  
 Mott St 83—Jos Addison  
 Nassau St 132—I A Adler Co  
 Park Ave 101—Comstock Associate Co

Park Ave 101—United Elect Construction Co  
 Park Ave 103—Stehlin-Miller-Henes Co  
 Park Ave 632—T J McGunnigle  
 Park Ave 1630—Wimpie Electric Co  
 Park Ave 1763—G V Gedroice & Co  
 Pearl St 119—Kelting Elec Co  
 Pitt St 92—Chas Kirschenbaum  
 Rivington St 151—Schneider & Kandel  
 Rose St 35-37—Geo Weideman Elec Co  
 Stanton St 62—Sommer & Fuchs  
 Third Ave 208 and 348—Irving Kenner Co  
 Third Ave 1021—E Kalkan  
 Third Ave 1373—H Goldberg  
 Third Ave 1397—Chas J Eichman  
 Third Ave 1915—I Gabriel  
 Third Ave 2586—A F Eggers  
 Wall St 2—Edwin C Gee

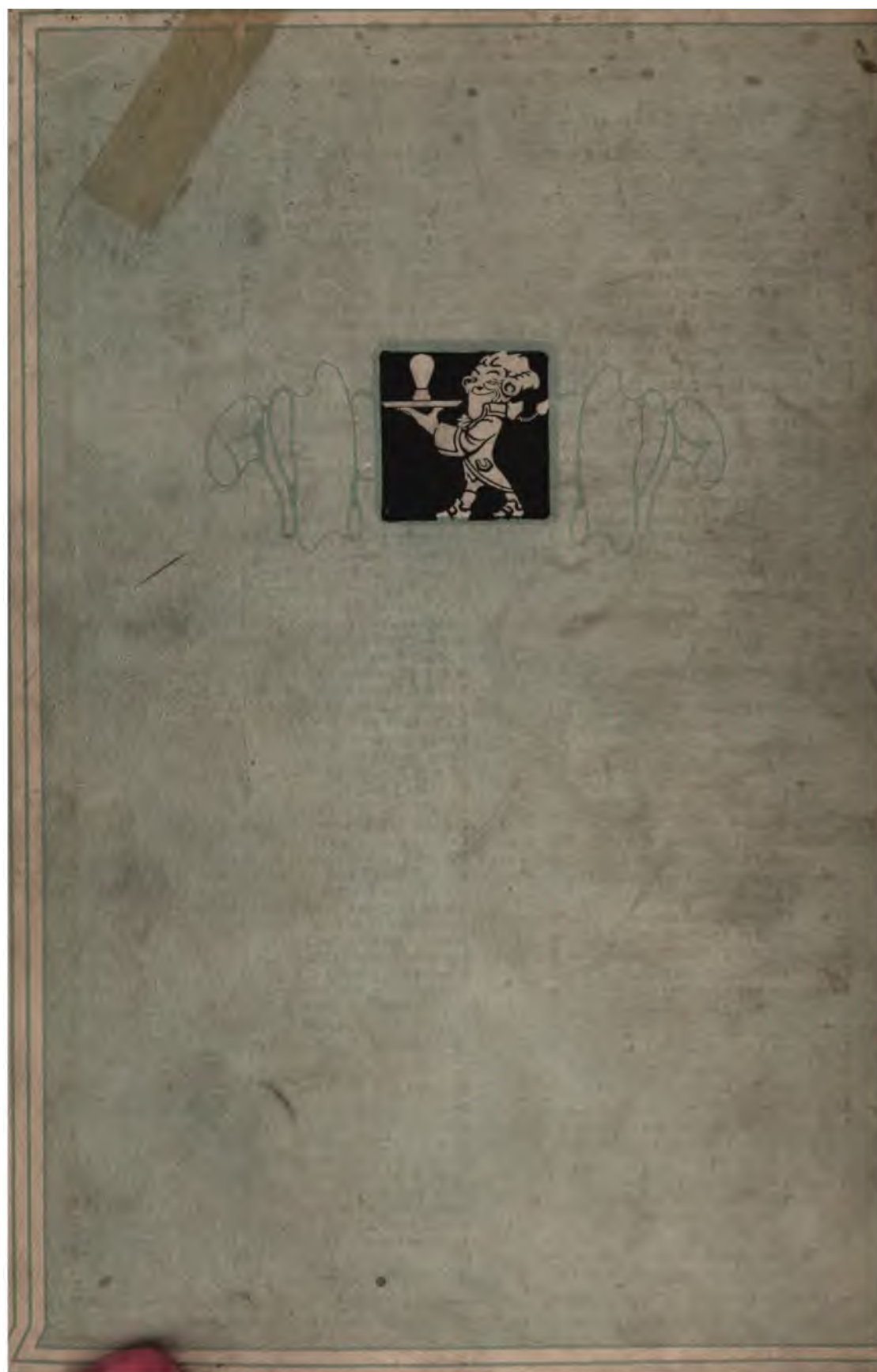
### Bronx

Altmann Leopold—1226 Washington Ave  
 Blackman & Guttman—226 East 144th St  
 Bogan Irving A—4192 Park Ave  
 Casey Hugh J—4206 Park Ave.  
 Dwyer M J—447 East 180th St  
 Edelmuth Jos—1046 Jackson Ave  
 Eggers Albert F—2586 Third Ave  
 Elkan Robert—897 Home St  
 Ellerbrock Herman H—379 East 138th St  
 Evans & Kaestner—939 Intervale Ave  
 Fox Leonard B—313 E 141st St  
 Hegeler F H—305 E 180th St  
 Howe J F—3113 Webster Ave  
 Israel & Co—2559 Third Ave  
 Josephson Joseph B—785 Forest Ave  
 Kuhn George—531 E 184th St  
 Landy Jacob—673 Elton Ave  
 Lowe J—835 E 152d St  
 M & M Electric Co—1643 Nelson Ave  
 Mathias J J—443 Willis Ave  
 Martin Robert C—815 E 180th St  
 Neilson Brothers—2580 Briggs Ave  
 Oehnke Paul—390 E 141st St  
 Pircher Frank S—339 E 140th St  
 Rosenfield & Harris—915 Whitlock Ave  
 Ross Edwin L—356 East 138th St  
 Sayles Electric Co—736 E 163d St  
 Schwarzler M & Son—460 E 167th St  
 Sladek Frank—3440 Third Ave  
 Starobin Jos—860 East 162d St  
 Strachan E A—435 E 155th St  
 Uhlendorf—5 Gouverneur Place  
 Vielberth Joseph F—1243 Taylor Ave  
 Woods Lewis H—2355 Jerome Ave  
 Yale Electric Co—650 Melrose Ave

### Yonkers

Bryant Leslie D—Ethan Flagg Bldg Getty Sq  
 Excelsior Gas & Elec Fix Co—42 Warburton Ave  
 Haussler Wm A—12 Riverview Place  
 Kips John—28 Cedar St  
 Nugent Electric Co—42 Warburton Ave  
 Snow W J—Crestwood  
 Stillman J E & Co—15 Warburton Ave  
 Stroh Electric Co—16 Riverdale Ave  
 Westchester Elect Equipment Co—73 Main St  
 Yonkers Electric Co—7 Manor House Square  
 Yonkers Lighting Fixture Co—73 Main St  
 Youmans Electric Co—45 Main St





# The New York Edison Directory

## Department Stores which Sell Electric Appliances

Adams-Flanigan Co—Westchester & Third Ave  
Bronx Basement  
Barnett Bros—Columbus Ave & 74th St  
Basement  
\*Bloomingdale Bros—59th St & Third Ave  
Basement  
John Daniell Sons—759 Broadway Basement  
\*Gimbel Bros—6th Ave & 33d St Fifth Floor  
\*J B Greenhut & Co—6th Ave & 18th St  
Basement  
H C F Koch & Co—132 W 125th St Basement  
Lewis & Conger—Sixth Ave & 45th St First Floor

Liggett-Riker-Hegeman Drug Stores  
\*Lord & Taylor—5th Ave & 38th St Fifth Floor  
\*James McCreery—5 W 34th St Sixth Floor  
\*R H Macy & Co—Broadway & 35th St  
Basement  
Rothenberg & Co—34 W 14th St Basement  
Stern Bros—41 W 42d St Fourth Floor  
\*John Wanamaker—Broadway & 10th St  
Seventh Floor

\*These stores maintain special electrical departments where wide varieties of electric household appliances are always displayed.

## Manufacturers and Agents

### Arc Lamps

Adams Bagnall Co—114 Liberty St  
Bogue Electric Co C J—513-15 W 29th St  
Cooper-Hewitt Elec Co—730 Grand Street  
Hoboken N J  
General Electric Co—30 Church St  
General Illuminating Co—369 Broadway  
Hallberg J H—38 E 23d St  
Kandem Electric Co Inc—49 E 21st St  
Stave Electrical Co—131 Hudson St  
Western Elec Co—463 West St and 105 West  
40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wohl M J & Co—211 Fulton St Brooklyn N Y

### Mercury Vapor Lamps

Cooper-Hewitt Elec Co—730 Grand Street Ho-  
boken N J  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

### Automobiles

C—Commercial I—Industrial P—Passenger  
Acker Merrill & Condit Co—523 W 46th St (C)  
Anderson Electric Car Co of N Y (Detroit Elec-  
tric)—Central Park West at 62d St (C & P)  
Atlantic Elec Vehicle Co—52 Vanderbilt Ave (C)  
Automatic Transportation Co—258 B'way (I)  
Baker R & L New York Corporation The—  
Central Park West at 62d St (P)  
Buda Co of Chicago—30 Church St (I)  
Comm'l Truck Co of America—30 E 42d St (C)  
Couple Gear Co—(Clarence L Smith Co Agents)  
—544 W 30th St (C)  
Cowan Truck Co—114 Liberty St (I)  
Electric Automobile Sales Corp—Times Bldg (C)  
Electro Coach Corp—30 Church St (Busses)  
Elwell-Parker Electric Co (Lucian C & G W  
Brown Agts)—50 Church St (I)  
Exide Battery Depots Garage Inc—474 W 130th  
St (C)  
West Side Garage 527-41 W 23d St  
East Side Garage  
North Side Garage  
Field Omnibus Co—149 Broadway (Busses)  
General Vehicle Co—30 East 42d St (C) (I)  
Healey & Co—Broadway and 51st St (P)  
Hoagland-Thayer Inc—383 Halsey Street  
Newark N J (I)  
Hunt Co C W Inc—61 Broadway (I)  
International Motor Co—West End Ave & 63d  
St (C)  
Lansden Co Inc The—Flatbush & Nostrand  
Aves Brooklyn (C)  
Lansing Co—288-9 West St (I)  
Mercury Mfg Co—(Truck & Tractor Co Agts)  
25 Church St  
No Moore St Garage—56-62 No Moore St (C)

Ohio Electric Car Co (Robt W Schuette Agent)  
—236 West 54th St (P)  
Orenstein-Arthur Koppel Co—30 Church St (I)  
Piercy Contracting Co—422 W 15th St (C)  
Proud Elec Co T I—114 W 54th St (P)  
The Electric Garage—Central Park West & 62d  
St (P)  
Walker Vehicle Co—Grand Central Terminal  
Room 3709 (C)  
Ward Motor Vehicle Co—Mt Vernon N Y (C)  
Wright's Garage Inc—600 W 158th St (P)

### Charging Apparatus

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—Belleville N J  
Electric Products Co The—30 E 42d St  
General Electric Co—30 Church St  
Industrial Controller Co—50 Church St  
Lincoln Electric Co—149 Broadway  
Northwestern Electric Co The—1457-63 B'way  
Wagner Electric Mfg Co—30 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Elec & Mfg Co—165 Broadway

### Charging Apparatus for Ignition, Starting and Lighting Batteries

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—Belleville N J  
Edison Thomas A Inc—141 Lakeside Ave  
Orange N J  
Electric Products Co—30 E 42d St  
General Electric Co—30 Church St  
Lincoln Electric Co—149 Broadway  
Robbins & Myers Co—30 Church St  
Wagner Electric Mfg Co—50 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Electric & Manufacturing Co—  
165 Broadway

### Mechanical and Battery Parts

Anderson Electric Car Co—Central Park West  
at 62d St  
Anderson Mfg Co Albert & J M—135 Broadway  
Baker R & L New York Corporation The—  
Central Park West at 62d St  
Edison Storage Battery Co—204-206 W 76th St  
Electric Garage—Central Park West & 62d St  
Electric Storage Battery Co The—100 B'way  
Exide Battery Depots Inc—2 West End Ave and  
64th St  
Gassaway F S Inc—212 E 54th St  
General Lead Batteries Co—1790 Broadway  
Gould Storage Battery Co The—30 E 42 St  
Phila Storage Battery Co—American Building  
Broadway and 58th St  
Storage Battery Supply Co—239 East 27th St



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Mechanical and Battery Parts (Concluded)

Walker Vehicle Co—531 W 46th St  
Willard Storage Bat Co The—228-30 W 58th St

### Buffers—Polishers

Bogue Electric Co C J—513-15 W 29th St  
Fort Wayne Electric Works of the General Electric—Co—30 Church St  
General Electric Co—30 Church St  
Green Electric Co The W—81 Nassau St  
Holtzer-Cabot Electric Co—83 Warren St  
Munning-Loeb Co—Canal & Sullivan Streets  
Robbins & Myers Co The—30 Church St  
Westinghouse Elec & Mfg Co—165 Broadway

### Clocks—Time Stamps and Recorders

Holtzer-Cabot Electric Co—83 Warren St  
Howard Electric Clock Co—Maiden Lane & William St  
Walker Bros & Haviland—50 Church St

### Coffee Mills

Boker H & Co Inc—101-103 Duane St  
Canton Electric Cut Co—11 E 125th St  
Coles Mfg Co—419 Long Beach Bldg  
Deer Co A J—55 West 63d St  
Hobart Mfg Co Inc The—24 East 21st St  
Howe Scale Co of N Y The—341 Broadway  
Jacobs Bros Co Inc—78 Warren St

### Drills and Grinders (Portable)

Chicago Pneumatic Tool Co—52 Vanderbilt Ave  
Cincinnati Electrical Tool Co—50 Church St  
Electro-Magnetic Tool Co—426 Broome St  
Hisey Wolf Machine Co—50 Church St  
Standard Electric Tool Co—30 Church St  
United States Electrical Co—50 Church St  
Van Dorn Electrical Tool Co—30 Church St

### Electro-Therapeutic and Dental Apparatus

American Sterilizer Co—Erie Pa  
American X-Ray Equip Co—401-405 E 31st St  
Edmonds Walter S—134 Congress St Boston Mass  
General Acoustic Co—Acousticon for the Deaf 220 W 42d St  
Hanovia Chemical & Mfg Co—30 Church St  
Harper Oriphone Co (Instruments for the Deaf)—303-305 Fifth Avenue  
Hospital Supply Co The—53-55 Fifth Avenue  
Hotpoint Elec Heating Co—147 Waverly Pl  
Hughes Co The J W—110 E 23d St  
Johns-Manville Co H W—41st St & Madison Ave  
Kny-Scheerer Co The—404-410 West 27th St  
MacAlaster Wiggin Co—66 Broadway Cambridge Mass  
Meyrowitz E B Inc—237 Fifth Ave  
Metropolitan Eng Co—35 Vestry St  
Neel-Armstrong Co—29 W 34th St  
Pelton & Crane Co—Detroit Michigan  
Pittsburgh Electric Specialties Co—412 Eighth Ave (lamps only)  
Prometheus Elec Co The—232 E 43d St  
Ritter Dental Mfg Co—Fifth Ave Building

Sanax Co Inc The—125 E 23d St  
Shelton Elec Co—30 W 42d St  
Simplex Electric Heating Co—120 W 32d St  
Sorensen C N Co Inc—177 E 87th St  
Tiemann Co George—107 E 28th St 107 Park Row  
Trenaman Dental Mfg Co—107 W 25th St  
Victor Electric Co—110 E 23d St  
Vioray Mfg Co—915 Whitlock Ave Bronx  
Waite & Bartlett Mfg Co—252-258 W 29th St  
Wappler Elec Mfg Co Inc—173 E 87th St  
Westinghouse Electric & Mfg Co—165 B'way  
White Dental Mfg Co S S—5 Union Square  
Williams Roger—120 W 32d St  
Wolff Co Wm F—501 W 145th St

### Elevators—Dumbwaiters

American Elevator Co—117 Cedar St  
Burdett-Rowntree Mfg Co—119 W 40th St  
Burwak Elevator Co—216 Fulton St  
Dowdall Chas E Inc—152 W Broadway  
General Elevator Co—29 Broadway  
Gurney Elevator Co—62-64 W 45th St  
Jordon Bros Inc—74 Beekman St  
Maintenance Co The—417-421 Canal St  
National Elevator Co—62-64 W 45th St  
New York Elevator Co—50 Grand St  
Otis Elevator Co—11th Ave and 26th St  
Reedy Elevator Co—202 Ninth Ave  
Roberts Elevator Co Jas H—430 W Broadway  
Sedgwick Machine Works—128 Liberty St  
See Elec Elevator Co A B—220 Broadway  
Warner Elev Mfg Co—113 Warren St  
Warsaw Elevator Co—216 Fulton St  
Wheeler McDowell Elev Co—417 Canal St

### Fans, Blowers and Air Compressors

Adams Bagnall Co—114 Liberty St  
Allis-Chalmers Co—50 Church St  
American Blower Co—141 Broadway  
Beach-Russ Co—220 Broadway  
Boker H & Co Inc—101-103 Duane St  
Brunner Mfg Co—30 Church St  
Century Electric Co—30 Church St  
Clayton Air Compressor Works—115 Broadway  
Curtis & Carhart Inc—150 Chambers St  
Curtis Pneumatic Machinery Co—30 Church St  
Diehl Mfg Co—149 Broadway  
Eck Dynamo & Motor Co—46 W Broadway  
Federal Sign System (Electric)—649 W 43d St  
Fox Electrical Corporation—119 W 42d St  
Garner Ventilating Co—136 Liberty St  
General Electric Co—30 Church St  
Gerdes Theo R N—123 Liberty St  
Hunter Fan & Motor Co—114-118 Liberty St  
Ilg Elec Vent Co—13 Park Row  
Kandem Electric Co Inc—49 E 21st St  
Kinetic Engineering Co—41 Park Row  
Koithan & Pryor—39 Cortlandt St  
Kragh C W—184 Hudson Ave  
Laidlaw-Dunn-Gordon Co—115 Broadway  
Manhattan Electrical Supply Co—17 Park Place 110 West 42d St, 127 West 125th St  
National Brake & Elec Co—165 Broadway  
Robbins & Myers Co The—30 Church St  
Smucker Arthur C—30 Church St  
Sorensen Co Inc C M—177 East 87th St  
Sprague Electric Works—527 W 34th St  
Strauss L L (For Rent)—74 W 125th St



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Fans, Blowers, Air Compressors (Concluded)

Sturtevant B F Co—50 Church St  
Typhoon Fan Company—1544 Broadway  
Western Elec Co—463 West St & 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Westinghouse Traction Brake Co—165 B'way  
Wing L J Mfg Co—352-362 W 13th St

### Fire Alarm Systems (Interior)

Auto Call Co—30 Church St  
Automatic Fire Alarm Co—416 Broadway  
Edwards Co—Exterior St Bronx  
Leveridge Chas W Inc—133 Liberty St  
Metropolitan Elec Protective Co—130 W 26th St  
Ostrander & Co W R—22 Dey St  
U S E M Co—221 West 33rd St

### Fixtures and Portables

Bayley & Sons Inc—101 Park Ave  
Benjamin Electric Mfg Co—114 Liberty St  
Black & Boyd—17 E 47th St  
Caldwell Co Edward F—36-40 West 15th St  
Dale Lighting Fixture Co Inc—107-9 W 13th St  
Federal Sign System (Electric)—649 W 43rd St  
Findlay Mfg Co Robt—28 Warren St  
Falkenbach Mfg Co The—159 E 54th St  
Fox Electrical Corporation—119 W 42d St  
Gleason Mfg Co E P—37 Murray St  
Goetz A E—55 Barclay St  
Harlem Gas & Elec Fix Co—157-59 E 128th St  
Heather Co The R C—19-21 W 36th St  
Kandem Electric Co Inc—49 E 21st St  
Lighting Studios Co—220 W 42d St  
Livingston & Co J Inc—70 East 45th St  
McFaddin & Co H G—38 Warren St  
McHugh & Son Joseph P—9 West 42d St  
Mayer & Co Leon—1304 Boston Road  
Metropolitan Elec Supply Co—126 W 36th St  
Miller & Co Edward—68-70 Park Place  
Mitchell Vance Co The—294 Madison Ave  
Morris Iron Works Elmer P—136 Liberty St  
National X-Ray Reflector Co—21 W 46th St  
N Y Gas & Elec Appliance Co—569-571 B'way  
Parker Co The Chas—32 Warren St  
Pittsburgh Lamp Brass & Glass Co—35 W 23d St  
Roeser & Heidelberger Inc—54 W 37th St  
Shapiro & Aronson—20 Warren St  
Sibley & Pitman—19-21 W 36th St  
Silvestro C—4149 Park Ave Bronx  
Simes Co The—20 Rose St  
Sommer Lighting Fixture Co Inc—386 Second Ave  
Standard Lighting Fixture Co—61 Warburton Ave Yonkers N Y  
Sterling Bronze Co—18 East 40th St  
"Vase-Kraft" Studio—333 Fourth Avenue  
Wahle, Phillips Co—Park Ave & 40th St  
Walter G E—157 East 44th St  
Western Elec Co—463 West St and 105 W 40th St

### Street Fixtures

Adams Bagnall Co—114 Liberty St  
Central Foundry Co—90 West St  
Fox & Co John—253 Broadway  
General Electric Co—30 Church St  
Morris Iron Works Inc E P—136 Liberty St  
Mott Iron Works J L—118 Fifth Ave  
Westinghouse Electric & Mfg Co—165 B'way

### Globes—Reflectors

Adams Bagnall Co—114 Liberty St  
Dealing William—1 Hudson St  
Fox Elec Corp The—119 W 42d St  
Frink I P—24th St & 10th Ave  
Gillender & Sons Inc—19 Madison Ave  
Gleason-Tiebout Glass Co—200 Fifth Ave  
Haskins Glass Co—98 Park Pl  
Holophane Glass Co Inc—340 Madison Ave  
Hubbell Harvey Inc—30 East 42d St  
"Ivanhoe-Regent Works" of the General Elect Company—105 W 40th St  
Jefferson Glass Co—220 W 42d St  
Lighting Studios Co—220 W 42d St  
Macbeth-Evans Glass Co—143 Madison Ave  
Morgan & Sons John—61 East 9th St  
Northwood Co H—19 Madison Ave  
Organ Arthur—114 Liberty St  
Phoenix Glass Co—230 Fifth Ave  
Harry Pickhardt—98 Park Place  
Pittsb'g Lamp Brass & Glass Co—35-37 W 23d St  
Straight Filament Lamp Co—42 E 23d St  
Weeks Nelson—214 State St Brooklyn N Y  
Wilkinson Co—93 Underhill Ave Brooklyn N Y

### Heating and Cooking

American Elec Heater Co—Detroit, Michigan  
Bohn Elec Co C C—820 6th Ave  
Boker H & Co Inc—101-103 Duane St  
Cutler-Hammer Mfg Co The—144th St and Southern Boulevard  
Dover Mfg Co—30 Church St  
Federal Sign System (Electric)—649 W 43d St  
Fox Electrical Corporation—119 W 42d St  
General Electric Co—30 Church St  
Hotpoint Electric Heating Co—147 Waverly Pl  
Hughes Electric Heating Co—Chicago Ill  
Johns-Manville Co The H W (Heating Pads) 41st St and Madison Ave  
Manhattan Electrical Supply Co—17 Park Place, 110 West 42d St, 127 West 125th St  
Metropolitan Elec Prod Co Inc—101 W 42d St  
National Elec Utilities Corp—103 Park Ave  
Pelouze Mfg Co—32 Park Place  
Phelps Mfg Co—2 Astor Place  
Pittsburgh Elec Specialites Co—412 8th Ave  
Prometheus Electric Co The—232 E 43d St  
Reimers Mfg Co—130 Church St  
Sibley-Pitman Elec Corp—19-21 W 36th St  
Simplex Electric Heating Co—120 W 32d St  
Western Elec Co—463 West St and 105 W 40th St  
Wicks Electric Co—Cleveland Ohio  
Williams Roger—120 West 32d St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wood Electric Co C D—441 Broadway

### Ironing Machines

American Ironing Machine Co—46 E 41st St  
Bergbom & Roberg—46 E 41st St  
Fox Elec Corporation (Simplex)—119 W 42d St  
Wallace B Hart (Roma)—46 E 41st St  
Hurley Machine Co—147 W 42d St

### Horse Clippers

Gillette Clipping Machine Co—110 W 32d St

### Low Voltage Direct Current Bell Ringers

U S E M Co—301 West 37th St



# The New York Edison Company

General Offices  
Irving Place & 15th St  
*Telephone Stuyvesant 5600*

BRANCH OFFICES	TELEPHONE
424 Broadway	Canal 8600
126 Delancey St	Orchard 1960
10 Irving Place	Stuyvesant 5600
124 W 42d St	Bryant 5262
151 East 86th St	Lenox 7780
15 East 125th St	Harlem 4020
362 East 149th St	Melrose 9900

All showrooms open until midnight

EMERGENCY NIGHT AND SUNDAY  
CALL—FARRAGUT 3000

## *Territory Served by the Various Supply Offices*

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Sts, west of the Bowery and south of Catharine St

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and South of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



"At Your  
Service"







VOLUME X

JULY, 1917

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## The Edison Monthly

**The Edison Monthly**  
Published by  
**The New York Edison Company**  
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N F BRADY, President  
JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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Back of the powder and bullets and the actual equipment of the fighting forces must be unlimited supplies of coal, for on this commodity and, of course, food, all other factors in war depend for their effectiveness.

The entry of the United States into the war will make possible the shipment of vast quantities of supplies of all kinds to our allies. While this accomplishment is possible it can only be done by the most intensive production and the most rigid economies in the use of all commodities.



Just as great armies of men are required to sow and harvest the wheat crop, another great army will be required to mine the country's coal. Just as there are countless acres that are ready for farming, so there are vast acres of coal lands ready for mining—if the miners can be found. And after the coal has been mined the most rigid economy in its use must be practiced.

Unlike the foodstuffs, the available supply of fuel can be made to go further by economy in its use. Coal can be burned in an efficient manner in large quantities in central power houses and its energy can be distributed in

the form of electricity to those whose power requirements are relatively small.



For example, the Jones Manufacturing Company, operating machinery of approximately 300 horsepower 10 hours a day, now burns 2100 tons of coal a year. The central power plant with machines totaling many thousand horsepower can deliver the power requirements of the Jones Company with a consumption of between 800 and 900 tons. These figures are not theory—they are engineering facts. And not only is the coal consumption of the country reduced by just this much, but quite as important to the Jones Company, a substantial saving in the cost of power is effected.

Multiply the saving in the countless Jones establishments over the country and it is at once apparent what a conservation of fuel will follow if the consumption of coal for power purposes is concentrated in central establishments. And this saving must be accomplished if our battleships, our transports, our railroads, and our great war industries are to be maintained at their full effectiveness.



At the outbreak of the present world war, it was easy to prophesy an opportunity for American manufacturers of electrical goods to supply the markets of Europe left open by the disappearance of Germany as a commercial factor. By 1916 our exports to foreign shores had shown a decided gain, and now data are available for the past twelve-month. For the month of January, 1916, the value of



## The Edison Monthly

electrical exports was \$2,600,000. By January, 1917, the amount had become \$4,912,924, an increase of more than 100 per cent over the previous year. For seven months up to January, 1916, the figure was fifteen million dollars; for a similar period, ending January, 1917, the value of electrical exports fell but a little short of thirty million dollars.



When the great war is ended and the balance is struck, there will be many items of note on the credit side of the ledger. While the war has outdone all other wars in the taking of life it has also developed many methods of alleviating suffering and of repairing broken bodies.

From France comes a report of a new method of treating burns, developed no doubt under the stimulus of offsetting in some measure the ravages of liquid fire. In a base hospital just outside Paris, according to the Illustrated World, the new method, in which electricity is an essential factor, is being applied with remarkable success.



The patients are men whose burns are anywhere from a day to a week old. After cleaning the injured area, the surface is dried by means of an electric hot air apparatus, and then sprayed with a hot solution of paraffin and resin. The dressing is made air tight by means of a cotton covering which is also coated with the solution. The paraffin-resin treatment is applied at a temperature of 158 degrees F. Pain vanishes the moment the air is excluded from the injured surface

and within a few days new skin begins to form.

It is essential in this method that the injury be absolutely dry before the first treatment is applied. Moisture would prevent the proper formation of the wax and the patient would be conscious of the hot solution. In securing this dryness the electric blower has been found to be more satisfactory than any other device.



When the black storm struck New York early in the afternoon of June 14 there was added to the load on the Edison System nearly 100,000 horsepower. This entire added demand, which is about one-third the normal load for that time of the day, was thrown on the system within a period of fifteen minutes.

Yet it was met and carried without affecting in the least the usual supply of current to our customers. New Yorkers turning on the switches to dispel the storm's darkness found the electric lights burning with their usual brilliancy.



Warned of the approaching darkness by the power plants wireless storm signal, all the resources of Waterside had been mobilized to meet the increased demand for current which the overcast sky would bring.

It is instances of this sort which spell the difference between electrical service as rendered by the private generating plant and electrical service as rendered by the Central Station.



# The Edison Monthly

## A Modern Zodiac



A country lad I came to town  
Accustomed to my country skies;  
But, though I thought that I was wise  
In star-lore, neither squint nor frown  
Could help me find the Twins, the Bear,  
The Crow or Berenice's Hair.

The zenith was too thick with haze;  
Horizon there was less than none:  
The moon? I doubted there was one,  
At least the moon I used to gaze  
Upon when just a country lad.  
My heart grew heavy, lonely, sad.

And then some light-elf turned my feet  
Into a merry thoroughfare  
With glowing moons oh, everywhere  
And, star-designed above the street,  
A jigging Dancer and a gay  
Kitten, a zodiac at play!

*Richard Butler Glaenser*

# Lighting the Aquarium

**I**N these days of interest in things of a submarine nature it is quite in keeping that the New York Aquarium, with its collection of under-sea plant and animal life should receive its full share of public attention. Some two million people annually pass through the doors of the historic and highly interesting building in Battery Park and it is estimated that since the establishment of the display more than 40,000,000 people, eight times the population of New York City, have visited this very remarkable collection.

The New York Aquarium is the largest and most complete in the world. In the number of tanks and the variety of specimens on display, even the magnificent European collections are outdone. As a rule the aquariums on the continent are limited as to the variety of specimens because their efforts at collecting are confined, in a measure, to the marine life indigenous to local waters. In the New York Aquarium, however, this is not the case for the exhibit includes fishes, turtles, crocodilians, frogs, salamanders, marine mammals and invertebrates of both northern and tropical character.

The aquarium recognizes but few boundaries and as a result some very rare specimens of marine life are often to be found in the collection. At times there are from 5,000 to 6,000 specimens representing more than 200 species in the tanks.

From the point of view of the casual observer, the maintenance of the

aquarium may seem to be comparatively simple. The fish live in water, and any quantity of this is available just over the sea wall of the Battery. That is the way the average person sums up the situation. How far wrong this conclusion is can be discovered by a brief visit to the long galleries that encircle the building in the rear of the exhibition tanks. Here are performed all the tasks of caring for and feeding the marine life, and when it is considered that a brief lapse of vigilance on the part of the attendants charged with this duty might result in the death of any number of valuable specimens the work of caring for the collection assumes a different aspect.

## *Care of Fish*

First of all, these five thousand and odd queer creatures must be fed, and this task in itself is very difficult. Here are undersea rovers from all corners of the world, each with a different idea of a square meal and, unless these whims of appetite are catered to, said sea rovers are likely to become sulky and turn up their scaly "tummys" in silent and perpetual protest. The monthly food bill is enough to make a frugal housewife grip her pocketbook in horror. Baskets of beef liver, clams, shrimp, crabs and other delicacies arrive at the aquarium every day, and added to this are such dainties as sand fleas, angle worms, minnows, mussels, and tiny crabs, which cannot be purchased in the local markets and must



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therefore be provided especially and at considerable expense.

The "Chef" at the institution is a very busy man, and his work is far more difficult than merely catering to the tastes of people. He has a kitchen set aside from the rest of the quarters and he devotes his entire time to preparing the food and getting it ready to serve. There are "feeders," too, whose special duty is to wait upon the finny and finicky guests of the establishment. They must see that the food is cut into big bits or little bits as suit the mouths of the fish they serve, and they must know when and just how much food is to be given each species. Over-feeding is as serious as under-feeding at the aquarium and if too much food is allowed to remain in the water it quickly pollutes the contents of the tank. There are some large appetites among the fish as well as some small ones. The porpoise, for instance, are said to



Feeding Time at the Aquarium is the Most Important Hour of the Day

consume some thirty pounds of herring each during a single day.

But feeding is not the worst of the troubles of an aquarium manager. There is the necessity of providing proper water for each group of specimens. There are fresh water fish as well as salt water fish and some require warm water and some cold water and to keep them all comfortable a heating plant and a cooling plant are both necessary. Then there is the work of providing salt water for the fish of the sea. The water from the harbor would hardly do, for it is so polluted that the fish could not live in it very long, nor would it be clear enough to allow a good view of the specimens through the glass fronts of the tanks.

This being the case it is necessary to send a tug boat out to sea for huge tanks of good, clear sea water. This is brought back and stored in a reservoir of four tanks located under the green lawns of Battery Park, and from which it is pumped into the aquarium building. So valuable is the salt water that a sand filtering process is used to cleanse and purify



Behold the "Chef." He Provides Meals for Many Curious Appetites



## The Edison Monthly

it before it enters and after it leaves the display tanks. In this way the same water may be used over and over again for a considerable length of time. A system of aeration is also used to purify the water and provide the proper amount of oxygen. At one time, when a new system of piping was being installed in the building, the aerating system kept some of the tanks habitable for their tenants for a period of a week or longer. As an evidence of the scientific care and management of the institution it is well worth noting that some of the fishes and turtles have lived in the building for ten and fifteen years.

Besides the display tanks and the big floor pools there is still another very interesting group of exhibits for the two million people who annually visit the Aquarium. This feature is composed of fish hatchery tanks in which salmon, trout, whitefish, smelts and perch are hatched from eggs contributed by the United States Bureau of Fish Hatcheries, with which the aquarium works in constant co-operation.

The reason for the existence of the aquarium is of course, primarily, the dissemination of knowledge of marine and aquatic life. A laboratory is included which offers good facilities for the close study of small marine invertebrates, and the host of other interesting things

that should be generally understood. This laboratory is visited by five or six thousand school children annually, their teachers accompanying them and giving instructions in the subjects under consideration.

The old building was opened as an aquarium in 1896 by the City and in 1902 its management was transferred to the New York Zoological Society.

The methods of illuminating the old structure have been many and interesting too. In the old days, when the place was the barracks for a regiment of the young Republic's artillerymen, the soldiers used tallow dips and horn lanterns as well as torches for signal fuses in the fort. Later, oil lanterns and still later, elaborate oil lamps were installed, following which came other forms of illuminants until the historic structure was finally wired and equipped for the use of electricity. Current for this interesting installation is supplied from the mains of The New York Edison Company.



*Photographic Bureau of The New York Edison Company*

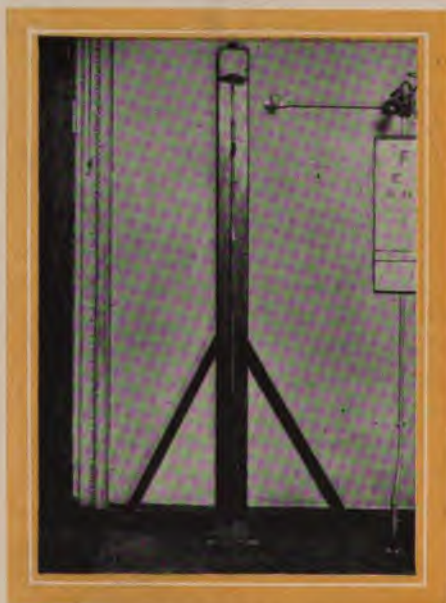
Behind the Scenes, Showing the Electric Lighting Arrangement Above the Tanks



## The Edison Monthly

### Cheating Cheaters

**E**LECTRICITY has always been a valuable aid to writers of detective stories. In many forms and under many conditions it has served to fathom mysteries, discover clues, and detect crime. Some of these uses have been taken from



An Electrical Detector Used in Philadelphia to Prevent Civil Service Applicants from Giving False Height Measurements

actual practice, but many, unfortunately, are nothing more or less than impractical theories that never have and probably never can be worked out.

But to the host of electrical detecting devices—the practical kind—Philadelphia has made a contribution. This ingenious application is meant to disclose the fact that a man is cheating in his physical examination for height.

Certain positions that come under

the jurisdiction of the Civil Service Commission must be filled by men measuring six feet or more; as for instance the traffic policemen. These positions are very desirable and many applicants who fall short of the required height by from a quarter to a half of an inch, are disposed to cheat a little by raising their heels.

However, with the new detector any attempt to register fraudulent measurements is discovered immediately. The applicant, when standing on the platform under the slide rule, steps upon two metal plates which are normally a fraction of an inch off the floor. These are just large enough to be covered by a man's heel, and when he stands with his heels to the floor the plates are pressed down and a contact is made and a circuit formed which lights a lamp overhead.

As long as the man stands with both heels upon the ground the contact is maintained and the lamp overhead stays lighted. But the moment he raises either heel the tiniest fraction of an inch the contact is broken and the lamp goes out.

So does he!

### Fog Bells

Can you hear them faintly tolling  
Through the sheeted vapors rolling  
Down the bay,  
Hear the notes now clear now broken  
Wafted like a shrouded token  
Through the gray?

Bells they are whose grim insistence  
Peals securely from the distance  
O'er the tide,  
Bells whose measured strokes repeating  
Sound from motored hammers beating,  
Us to guide.

*F A Farnsworth, Jr*

# L'Hôtel des Artistes

A FINELY designed studio building is in more senses than one "art for art's sake." In a surpassing degree this is true of the

new Hotel des Artistes, an imposing seventeen story edifice in early English Gothic style, situated just off Central Park West on Sixty-seventh street.



*George Morton Pollard, Architect*

*Photographic Bureau of The New York Edison Company*

Among the Large Studio Buildings of the West Side, the New Hotel des Artistes Ranks as the Most Elaborate in Architectural Detail and in Equipment



## The Edison Monthly

Not only is it the largest studio building in New York, it is also, in arrangement and equipment, unique in the city and probably in the world.

Erected by a corporation, like other large studio buildings in the section, the hotel will provide permanent homes for many well-known men of arts and letters, whose duplex apartments—there are seventy-two in all—have each been decorated and to a certain extent arranged according to the owners' desires.

Under the decorative marquise, the doorway opens into a vestibule with groined ceiling and thence into a large entrance hall. A grill room, richly furnished in Flemish oak, is at the right; opposite is a ladies' reception room. Directly in front of the central door, and reached by flights of shallow stairs leading down to its double doors, is the magnificent ballroom, already in demand nearly every night for social affairs of various kinds.

Probably no ballroom in the city has more beautiful decorations than the paintings which adorn the walls of this great hall. They are the work of Mr Frank Dumond, the artist, and represent with a glorious wealth of color, nymphs in flowing garments dancing on flowery hilltops or by the seashore, fully typifying, entirely

without garishness, the spirit of music and the dance. Designed in English seventeenth century Renaissance, the room itself has high white paneled wainscoting, wall pilasters and piers in Ionic design and an arched and ribbed ceiling. A balcony for spectators extends along the southern side, a continuation of the mezzanine balcony in the hall.



*Photographic Bureau of The New York Edison Company*

One of the Imposing Studios on the Top Floor of the Hotel is Occupied by Walter Russell, Portrait and Landscape Painter. Two Powerful Mazda Lamps with Reflectors Light His Easel at Night

Like the ballroom, both the grill and dining room are open to the patronage of the public. The dining room, located on the second floor, directly above the entrance hall, looks out on the street through a row of high-silled mullioned windows that give a most domestic effect.

Behind this and occupying the remainder of the floor is the enormous kitchen which is not only equipped for serving the grill and dining rooms, but also for preparing food to be sent



## The Edison Monthly

up to the private dining rooms of the apartments. In addition it can also cater if need be to social gatherings in the ballroom. Provided at a cost of no less than \$40,000, its equipment includes the very latest in electrical labor-saving devices. Among these are a huge potato peeler, an ice cream freezer and a big electric dishwasher. Seven electric dumbwaiters

fifteen horsepower motors pump the brine through the seven large boxes in the kitchen and through the small boxes in the apartments. Fifty 100-pound cakes of ice can be made in connection with this plant.

Nor does this complete the power equipment of the hotel. Two other motors of seven and one-half horsepower each pump the water supply to a

house tank on the roof. A sump pump and an ejector pump are operated by a three and one-half and a three horsepower motor respectively. The laundry is completely fitted with electrical machinery. Large exhaust fans for drawing the smoke from the grill room and kitchen and for ventilating the areaways also depend upon electricity for operation. The three electric passenger elevators are ten, fifteen and twenty

horsepower. All current is supplied from the mains of The New York Edison Company.

Such is the "behind the scenes" equipment of the hotel. As for the apartments themselves, the typical form has a large front studio with a nineteen foot ceiling from which are suspended one or two chandeliers for artificial lighting. The stairway ascends from a reception room and terminates on the second floor behind a balcony which overlooks the studio.



*Photographic Bureau of The New York Edison Company*

A Portion of the Large Ballroom, Showing One of the Beautiful Decorative Panels That Adorn Its Walls. Only Half of the Room is Shown in the Photograph

serve the apartments from the kitchen; the touch of a button shooting them up automatically to their destination in a private serving room; the touch of a button upstairs sending them down again. Signals are given to the chef by a simple system of electric lights.

Refrigeration throughout the hotel is supplied by an electrically driven ice plant in the cellar. A thirty-five horsepower motor compresses the ammonia to chill the brine, while two



## Vinegar from Winchester

WHERE, if anyone should ask you, would you imagine the largest, most modern and hygienic vinegar factory in the country is to be found? Somewhere in New York State, you'd probably answer, or in the progressive apple-growing Northwest. And you'd be wrong, for it's down in Winchester, Virginia. Not that Winchester is given to boasting of its unique, electrically operated vinegar factory, as other places might. Winchester, quaint historic town, is more concerned with its thrilling past, from the Indian War times when Braddock's men marched down its long main street, to the sixteen battles that were fought for its possession during the Civil War. The hospitable inhabitants, an agreeably large proportion of whom one instinctively addresses as "Colonel,"

will go far out of their way to point out to strangers the house with the cannon ball still sticking in its walls, or the Star fort, beyond the town, whose earthworks have remained a barren red scar for fifty years, and have never grown grass. But the vinegar factory is not regarded as an object of interest, and it was discovered quite accidentally, by following to its goal one of the hundreds of wagons loaded with apples that constantly roll through the town.

The factory, which is owned by the National Fruit Products Company of Alexandria, occupies several large buildings covering acres of ground. A million gallons of cider vinegar is hard to imagine, but that is the estimated 1916-1917 output. From the time when the apples are shovelled out of the wagons to the moment when a label is automatically pasted

on a bottle of vinegar, all operations are conducted electrically. The plant is so clean, and its product so high grade, that it won a clean bill of health from the government inspectors.

As soon as a wagon of apples has been weighed in at the factory, it is backed up to an unloading trench outside the apple storage house, where



Conveyed Through Wooden Chutes the Apples Reach the Grinders Which Reduce Them to Pulp

## The Edison Monthly



The Fermented Cider Flows Through Wooden Pipes to These Huge Vats or Generators

the "do it by motor" idea takes charge. Through the bottom of the trench runs an electric conveyor that can whisk away the contents of six wagons all unloading at once. This conveyor deposits the apples in storage bins, and whenever they are wanted a similar conveyor carries them up to the grinding room, on the top floor of the next building. The conveyor distributes the apples through wooden chutes to three electric grinders, which crush them to a pulp, and pass them down to three presses on the floor below. The ground apples, called pomace, are placed in the presses in layers, with burlap between. A turn of the switch sets the electric presses in motion, and the juice begins to flow—ten barrels from a single press-

ing. When the first press is over another set of conveyors takes the pomace back to the third floor. It is re-ground still finer in a specially constructed grinder, and sent through the presses again, yielding another three barrels of apple juice. The pomace is then carried

out of the building, still traveling by electric conveyor. In a single ten-hour day these three grinders and the three presses will crush and squeeze one hundred thousand pounds of apples.

From the presses the juice flows into a receiving tank on the first floor, where electrically operated pumps force it into storage tanks. There are thirty-eight of these tanks in the great sheds, thirty-six each holding twenty-



These Electric Presses Squeeze Out Ten Barrels of Juice at a Single Operation



## The Edison Monthly

seven thousand gallons, and two of over fifty thousand gallons capacity apiece. In these the cider ferments naturally, and is drawn off as needed. It usually remains in the tanks for several months, and often over a year. When needed for the finished product, it is pumped from the tank sheds to a raised container in the generator room, from which it flows through wooden pipes to the generators. The flow into the generators is controlled by stop-cocks, so that a regulated stream enters, and the vinegar comes out with exactly the desired acid content. The vinegar flows from the generators to other storage tanks, from which electric pumps are again used to send it to the bottling room.

To an outsider this is the most interesting place in the factory, for four small motors, each of one-half horsepower, operate a number of ingenious contrivances. One of these is the sterilizing machine, in which the bottles are sterilized with live steam. Roller conveyors transport the filled bottles to the labelling machine, a device that picks up a label, covers the back of it with glue, places it on a bottle, and carefully smooths it out.



A Motor-Driven Machine Pastes the Labels on the Bottles



The Pomace, Before Going into the Big Presses

Another device, a rotary tray, carries the finished bottles away to be packed in cases for shipment. The vinegar is put out in fifty-gallon barrels, in half-barrels, and in five and one-gallon jars, as well as the one-quart bottles.

At the present time, motors with an aggregate capacity of about fifty horsepower are used to run the plant, and the current is supplied by the local electric light and power company. The grinders and presses are now operated with a twenty-five horsepower motor, but this is shortly to be changed for a larger one.

Winchester's history in the past has been written in terms of war, with records of spectacular gallantry and picturesqueness, but with the disasters and wreckages of war. Its vinegar factory is making modern history—the history of upbuilding, of industry, of the electric conveyor instead of the wheelbarrow. Doing it by motor drive brings prosperity, but Winchester accepts prosperity with well-bred dignity, as a personal affair, and unless the stranger happens to follow a wagon load of apples, he may never discover that the town possesses a superlative vinegar factory.

# Advertising Here and in China

THERE may have been a time when Celestial commodities, Celestial viands in particular, needed no advertising. In fact did not Ho-ti's roast pig in Lamb's immortal Dissertation thrive on the savor of its virtues alone? And for generations thereafter was not this delicacy published by the simple blazing away of rattan cottages? But as every one knows, Celestials included, houses have long since become too costly for such like, while the roast pig of palatable dainties calls for special publicity.

In the narrow and twisting streets of the Flowery Republic tall paper panels flush with the house walls or angular banners of vivid hues announce as yet the abodes of *chow main* and *yakaman*. But here in the Occident, here in the publicity paradise of Manhattan itself, no mere flags will suffice. Painted signs of divers descriptions for some years met the needs of these restaurants. Today it is the electric sign and a type of

紐約華人餐館東主志  
在傳招牌、固不遜於美  
人餐館東主、時在往昔  
華人雜碎館於廣傳招牌  
、非如今日之亟、就以時  
經未久者言之、偶語華  
人珍饈、足令好者蜂  
擁而至、惟在今日、華  
人烹調、幾同慣熟、而  
餐館又星羅棋布、故徒



*Photographic Bureau of The New York Edison Company*

One of Chinatown's Finest. The Big Sign is an Important Part of the New "Oriental's" Equipment



## The Edison Monthly

sharp emphasis that is filling the bill.

As one would expect, Chinatown and its immediate neighborhood have gone in for this sort of thing with eagerness. In fact the signs showing at present on the facades and corners of the larger restaurants of the quarter are of the second generation. The somewhat modest and generally restrained announcements of five years back have been quite outgrown.

Passengers by "L" across Chatham Square at night are caught and, optically speaking, held by a veritable orgy of color down the midst of which the letters "ORIENTAL" descend with suggestive Far Eastern twists and turns. If one looks in time these letters flame out again on a second sign from a balcony below. These two up-to-date sign creations are worth stopping to examine.

The first is found to rise brilliantly from a no less brilliant cup of tea. This cup of mammoth dimensions is gay with variegated hues accentuated by flashing bulbs in outline. Steam, presumably, that rises from the magical contents vaporizes quickly into the gorgeous shaft of the sign proper. If it were or had ever been possible to describe in English the squirmings and convolutions of Chinese design the same would find place at this point even as the twistings themselves do up the sides and about the top of this oddly lighted shaft. But who can describe them and who can ascribe becoming credit to the sign maker who in this particular case adapted his bulbs and colors to such difficult outlines? But adapted they are, pulsating away with a creepiness that serves to accentuate the wriggles and writhings

以雜碎館引人、亦  
僅屬於司空見慣耳  
、其所許於人者、  
娛樂雖未有減、而  
其餐館之擴張與發  
達、須藉特別之廣  
告也、今欲充盈此  
需、其惟採用電招  
牌乎、餐館生意、  
旺在於晚、若以電



A Sign Accommodated to the Long Distance Prospects of Upper Broadway

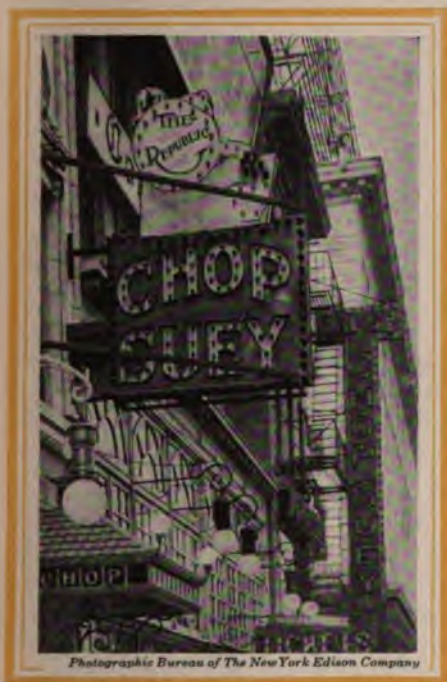
力宣言、招徠顧客、其  
效甚大、業餐館者或有  
多數已明乎此、觀其已  
經採用、而可知矣、雖  
然、猶有視電招牌為不  
必需者、夫買一電招牌  
、須用資本、人已深悉  
、若以登於報章之告白  
費而比較之、則其價實  
非昂也、蓋一旦買一電



## The Edison Monthly

among which they twinkle. The balcony panel is far less elaborate and contents itself with a transparency effect of darting sun's rays at the two ends. Yet its letters of the channel type are as quaint as those of the big panel rising above them.

While in Chinatown itself proprietors of the larger restaurants have



This Design Figures Prominently Among the Smaller Signs of the Longacre District

been alert enough to adopt distinctive trade names, the same cannot be said of Celestial restaurant owners who of late years have scattered well over town. It is whispered, indeed, that in many an instance the name not only of the establishment but of the man himself has curiously been left to the discretion of the sign maker.

A sizeable restaurant next the Rialto Theatre, and boasting the title

招牌、非如一日或數期之報紙、惟仍長此宣佈、養費亦輕、又以印字招牌、及晚無用、比之何如、凡曾目擊且林士果亞萬芳樓之招牌、及熟識其生意之增進、則電招牌之問題、已無可駁矣、其最要者、則餐館之名、砌以電字、圍以各色射光之邊、其下則砌茶一杯、熱汽上升、外觀有若射球、其畧儉而有效者、則爲二號車路八百九十七號之招牌、每點鐘養費、祇及七仙半、其招牌樣如T字、雜碎二字、橫於兩杆、圍以動目之邊、各角飾以亮形、烘日冠其上他如別頃款式、如常用之火枝、若有餘地、亦可加入、此種特別招牌、異常動目、爲衆所好、既已詳言、而其節省廉於別項告白、與其養費之節省、觀其所舉之數、而可知矣、



## The Edison Monthly

"The Republic" lettered on a big globe in a flasher effect, speaks but modestly for the inventiveness of the designer. An announcement at Third avenue and Fifty-seventh street proclaiming Chop Suey available till 4 a. m. smacks more of the original. A flasher border surmounted by a flaming torch is attractive enough and familiar enough. It is the "Charlie Lung" that gleams out from a horizontal panel that does real credit to the originator. That this bland Charlie in particular deserves a name of this prominence is only less insistent than the question whether he knows about it or cares. There may be little in a name anyway. The important thing, to be sure, is the lights, a truth to which Charlie long ago tumbled with Oriental ingenuousness.

### *Striking Designs*

A member of the Sy dynasty flourishes at the corner of Ninety-sixth street and Broadway. The exterior at least of this ornate restaurant is familiar possibly to the New York reader. Not only three signs, one of them elaborate, but an array of picturesque electric lanterns announce this resort quite unavoidably. Practically the entire front is taken up by balconies of imported filagree the tiled roofs of which are bordered by quaintly decorated eaves. Big channel letters spell Chop Suey in sharp relief across the centre panel with graceful globes of opalescent glass swinging along the base. The second and more ambitious sign shows at the corner angle where Chop Suey is again in evidence down a vertical panel. What this panel mounts from

is something of a mystery. To describe the big flashing oval as a Celestial watermelon would doubtless mean contradiction. To describe it as anything else would be futile. The interesting part of the sign occurs at and over the top. It is here that Jung Sy flashes out in channel letters against a mass of lighted filagree, the tip of which continues out and down to resolve itself into chain links. These support in turn a pagoda-like and electrically lighted lantern. Why all this—the Chop Suey, the Jung Sy, and the lantern—should spring from a watermelon is a puzzle of proverbial Chinese difficulty. The third sign appears in the guise of a flaming sun on the peak of the tiled hood over the entrance. A full blown aster blushes away on a transparency in the centre. These assorted and colorful features proving insufficient, a row of electrically served native lanterns sway back and forth under the protecting roofs of the balconies.

Space unfortunately forbids allusion to more of this strange fraternity with their dragons and dog-fus and rising suns. Yet it is enough, perhaps, to have pointed out the singular readiness with which the Chinese restaurant man has taken to himself the publicity methods of the day. And not only is it interesting to note this breaking down of racial conservatism. The ease with which electricity has suited itself to Oriental needs and ideas of things is quite as instructive of modern change and adaptability. While it is doubtless a far cry from burning cottages to flasher borders it is hardly of less moment to see electric light reverting to the elemental dragon.

## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**The Late Joseph Hodges Choate. This Photograph of Mr Choate Sitting Beside the Bust of Mr Edison was Taken in One of the Offices of The New York Edison Company**



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

Cornice and Chandelier Lighting Bring Out the Details of the Grand Ball Room to Imposing Advantage



*Photographic Bureau of The New York Edison Company*

The Afternoon Tea Room is Characteristic in Richness of Setting and Embellishment

## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

The Hotel Savoy in Its Recent Adoption of Central Station Service Has Added the Final Feature to an Ideal Equipment. A Pioneer in the Policy of Elaborate Ornament, the Savoy Has Maintained at the Same Time an Elaborateness and Up-to-dateness of Service to which Edison Supply is Proving a Logical Climax



# Memorable Models

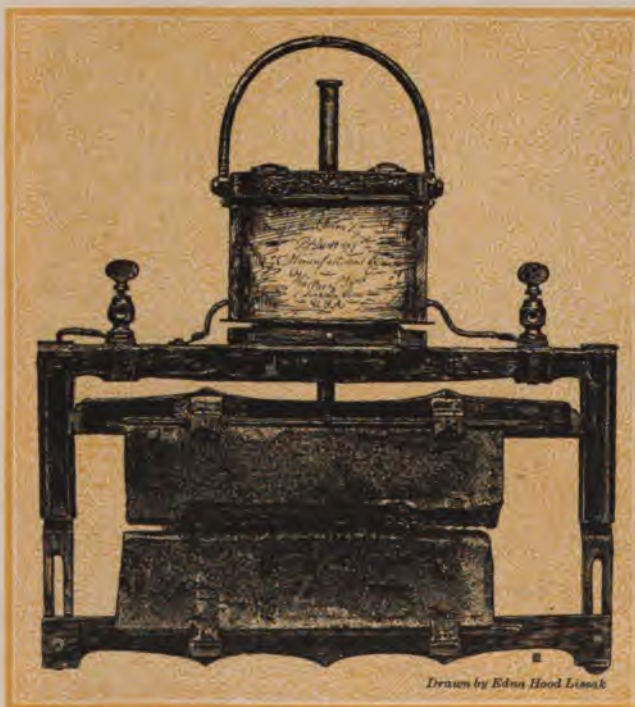
## Part II

A PREVIOUS article has outlined the origin and growth of the collection of electrical relics maintained by the National Museum at Washington. To describe even briefly all of the 70,000 objects that make up this exhibit would furnish a volume of encyclopedic proportions. Accordingly, the EDISON MONTHLY will confine its account to those features especially interesting to its readers.

The principle of arrangement adopted by the Museum deserves some

comment. In general, groupings are made along the line of usage, to illustrate the evolution of the telegraph, the telephone, the electric light, electric traction, industrial applications and so forth. First in mention is the Joseph Henry material, treasured not only on account of Henry's connection with the Smithsonian Institution, but because his work served as the foundation for development of the telegraph and motor.

Here stands Henry's reciprocating electro-magnetic apparatus, devised in 1831. Of this he wrote at the time, "Not much importance is attached to the invention since the article, in its present state, can only be considered a philosophical toy; although in the progress of discovery and invention, it is not impossible that the same principle or some modification of it on a more extensive scale may hereafter be applied to some useful purpose." Savoring a bit of inherited Scotch caution, such is his modest esti-



The Wallace Arc Lamp of 1877 Uses Carbon Plates Instead of the Usual Carbon Pencils

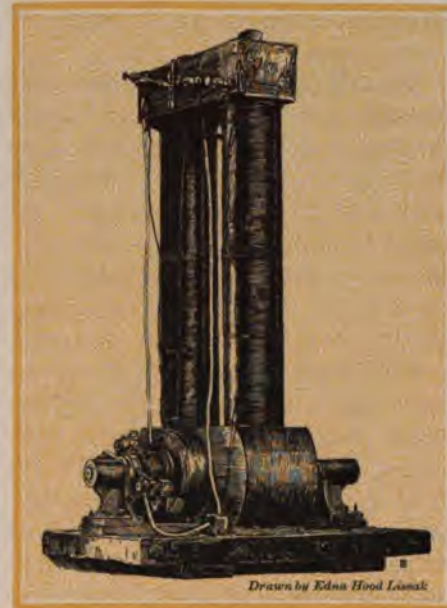
## The Edison Monthly

mate of a device which introduced the principle of the electric motor.

Here also is the "Yale magnet" made for that college (as it then was) in 1831. Operated by two battery cells, it developed a lifting power of between two and three thousand pounds. Not far off is his "signalling apparatus," used in Albany in 1831 to send signals through a mile-long wire.

Next the Museum presents the accomplished fact, the original Morse telegraph register and port rule, the very first electro-magnetic receiving telegraph instrument produced by the inventor. The now familiar Morse symbols were marked in zigzag lines by pencil on a strip of paper which was moved along by clock work. This apparatus was made by Morse in 1837 and exhibited in New York City on September 2nd of that year. Another early telegraph relic is the so-called "Schieb instrument"

which dates back to 1844. In that year a certain James Green, otherwise unknown



The Edison Dynamo of 1878 was Used on the S S Columbia on a Trip Around Cape Horn

to fame, made this set for the Reverend Henry Schieb of Baltimore, from descriptions of the Morse contrivance. Schieb was a schoolmaster and used his telegraph on a private line between his house and his school.

Next in order of world electrical events was the trans-Atlantic cable. On this subject the Museum has a valuable contribution in the shape of the first message that crossed the

Atlantic, recalling an incident now nearly forgotten, namely the interruption of current in the midst of Queen Victoria's congratulatory message to President Buchanan. Several years ago the letterings on these old papers began to disappear, but luckily they were pho-



Maxim's Model of an Incandescent Lamp



## The Edison Monthly

tographed while the words could still be deciphered.

The original of the first under-ocean message reads: "Her Majesty desires to congratulate the President upon the successful completion of this great international work in which the Queen has taken the deepest interest." At this point came the break, the brevity of the Queen's statement making it evident to all concerned.

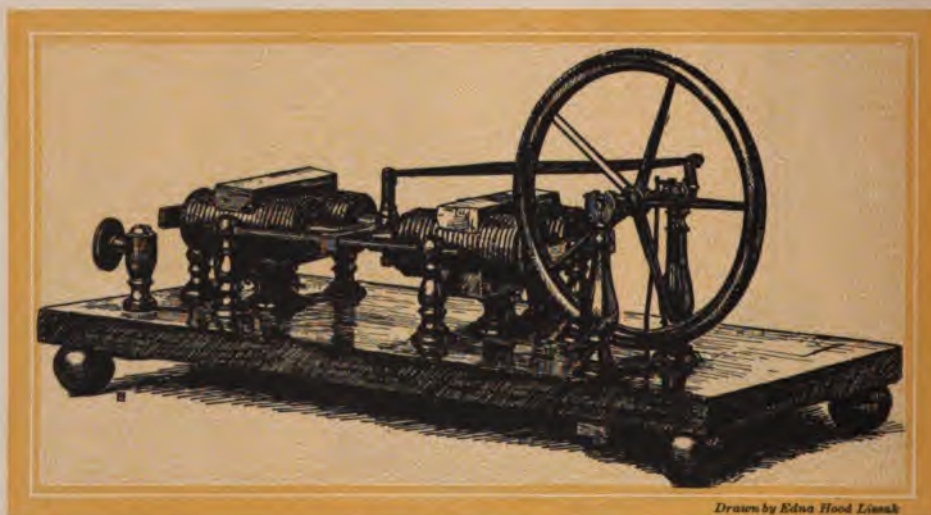
The second document is the operator's report, bringing with it immeasurable relief to Field and his associates. "Trinity Bay, August XVIIth E M Archibald Nyork Queens message completed yesterday and during its reception Valentia desisted sending it in order to make slight repair to cable through a mistake the part received was sent south as if it constituted the whole message De Sauty"

Next comes document three.

"Nyork Aug XVIIth to the honorable, the President of the United States Washn. I beg leave to trans-

mit a message this moment received from Trinity Bay explaining the cause which prevented the whole of the Queen's message being telegraphed from Valentia yesterday together with the complete message itself. Shall we consider your message to her Majesty a complete reply and date it this day accordingly? The operators at Trinity Bay await your answer. Peter Cooper Valentia via Trinity." There then follows the remainder of Queen Victoria's compliments on the completion of the cable.

In the division of motors is the famous Davenport model of 1837, which the unfortunate inventor used to send a little toy train around a circle of tracking. This he exhibited in various cities hoping to raise money to push his scheme. The tragedy of Davenport lay in the fact that the dynamo was still undeveloped, and until there should be an adequate source of power, there could be no practical use of his motor.



Invented by Charles Grafton Page in 1850, this Motor, Operated by a Chemical Battery, Ran a Car on the Baltimore and Ohio R R



## The Edison Monthly



*Drawn by Edna Hood Lissak*

The Seeley Electric Light Dynamo of 1867

Another motor rarity is that of Jacobi, invented in Russia in 1834, but not used until 1838, when it propelled a thirty-six foot boat on the Neva River in St Petersburg—the first motor boat on record. The inventor, Maurice Hermann Jacobi, a German by birth, was councillor of State at the Russian capital. Besides this early motor, to him is attributed, the discovery of "Galvanoplasty," or electrotypy.

Other early motors on view include one devised in 1840 by Gardner Quincy Colton, the first with which a railroad track was used, as part of the electric circuit. That of Charles Grafton Page (1850) was operated by a chemical battery and actually ran a car for several miles along the Baltimore and Ohio railroad track, which at that time terminated at the corner of Second street and Pennsylvania avenue in Washington. Then there

is a little motor, the first to be operated by power from Niagara Falls, the current being sent 453 miles to New York City via the Western Union wires. This feat was performed in May, 1896.

Among the curious early electric lights is one invented by Hiram Maxim, in 1878, and said to be capable of burning a thousand hours; of this, the Museum has the Patent Office model. The arc light invented by William Wallace in 1877 is a bulky affair, employing carbon plates ten inches wide instead of the pencils which later became the practice.

The history of generating machinery is not neglected. There is the Seeley dynamo of 1867, which was part of Seeley's plan for providing electric lighting. It was exhibited in New York City, where (tradition has it) it was shown to Horace Greeley, who exclaimed scornfully, "does he expect to grind out electric light by turning a crank?" More successful was the Wallace dynamo of 1874 which introduced to this country the first Gramme or ring-wound armature. This machine was originally a magneto, the field being charged by batteries, but in 1874, Wallace discovered the self-charging principle.

Lastly comes the Edison dynamo of 1878, the first which served to operate lights on ship-board. This was placed on the steamship "Columbia" which sailed from New York around Cape Horn for Portland, Oregon.

Such is a brief outline of the electrical relics in the National Museum, a collection growing year by year, through gifts from scientific bodies and from the families and friends of inventors.



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Motors

#### General Uses

Allis-Chalmers Co—50 Church St  
Bogue Electric Co C J—513-15 W 29th St  
Boker H & Co Inc—101-103 Duane St  
Bell Electric Motor Co—30 Church St  
Burke Elec Co—30 Church St  
C & C Electric & Mfg Co—90 West St  
Century Electric Co—30 Church St  
Colonial Fan & Motor Co—150 Chambers St  
Crocker-Wheeler Co—30 Church St  
Diehl Mfg Co—149 Broadway  
Eck Dynamo & Motor Co—46 W Broadway  
Electro-Dynamic Co The—Ave A Bayonne N J  
Emerson Elec Mfg Co The—50 Church St  
General Electric Co—30 Church St  
Holtzer-Cabot Electric Co—83 Warren St  
Imperial Elec Co (Watson)—253 Broadway  
Lincoln Electric Co—149 Broadway  
Mechanical Appliance Co—154 Nassau St  
Northwestern Mfg Co—243 Canal St  
Peerless Elec Co—147-9 W 35th St  
Reliance Electric & Engineering Co—90 West St  
Robbins & Myers Co The—30 Church St  
Sprague Electric Works—527 West 34th St  
Triumph Electric Co—114 Liberty St  
Wagner Electric Mfg Co—30 Church St  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

#### Inspection—Maintenance—Repairs

Blackall & Baldwin Co—39 Cortlandt St  
Bogart Co A L—55 Barclay St  
Borne Chas A Co Inc—35-37 Wooster St  
Comstock Associate Co—101 Park Ave  
Conlan Electric Co—43 Murray St  
Elec Machine Tool Co—50 Church St  
Elec Motor Insp & Rep Co—1 Beekman St  
Elec Repair Co—548-550 W 23d St  
General Electric Inspection Co—237 Fulton St  
Globe Elec Cont & Rep Co The—434 Broome St  
Graham Bros Co—585 Hudson St  
Hammill John—55 Ann St  
Harlem Electric Co—6 E 116th St  
Jordon Bros Inc—74 Beekman St  
Kelting Electric Co—119 Pearl St  
Leve Robert E—19 E 32d St  
Maintenance Co The—417 Canal St  
National Electric Co—89 Centre St  
Naumer Elec Co—96 Beekman St  
Naylor & Newton—243 Canal St  
Reilly Maintenance Corporation—122 Centre St  
Russell & Co—56 W 45th St  
See Van Dyck C—39 Cortlandt St  
Weiderman Geo Elec Co—35-37 Rose St  
Westinghouse Elec & Mfg Co (Repair Shop)—  
467 10th Ave cor 36th St

#### Starters and Controllers

Allen-Bradley Co—50 Church St  
Automatic Switch Co—4 White St  
Curtis-Carhart Co Inc—150 Chambers St  
Cutler-Hammer Mfg Co The—50 Church St  
Electric Controller & Mfg Co The—50 Church St  
General Electric Co—30 Church St  
Industrial Controller Co—50 Church St  
Rowan Electric Mfg Co—39 Cortlandt St  
Ward Leonard Electric Co—Mount Vernon N Y  
Westinghouse Elec & Mfg Co—165 Broadway

#### Used Motors

Archer & Baldwin—114-118 Liberty St  
Cutter Co F B—50 Church St  
Duzets & Son—546 W 45th St  
Graham Jas A—30 Church St

Holcomb & Co D S Inc—241-3 Canal St  
Klein & Co—208 Centre St  
Oneida Elect Co—313 Canal St

### Office Accessories

Edison Dictating Machine—Orange N J 114  
Liberty St N Y C  
Ensign Elec Calculating Machine—280 B'way  
"The Dictaphone"—83 Chambers St  
The Hooven, Owens, Rentschler Co—Woolworth  
Building  
"The Millionaire" Elec Cal Mach—1 Madison Ave

### Pumps

Beach-Russ Co—220 Broadway  
Blackall & Baldwin Co—39 Cortlandt St  
Boker H & Co Inc—101-103 Duane St  
D'Olier Centrifugal Pump & Machine Co—503  
Morris Building Philadelphia Pa  
Goulds Mfg Co—16 Murray St  
Holland Machine Co—90 West Broadway  
International Steam Pump Co—115 Broadway  
Lea-Courtenay Co—90 West St  
Platt Iron Works The—50 Church St  
Quimby William E Inc—548 West 23d St  
Rider Ericsson Engine Co—20 Murray St  
Rumsey Pump & Mach Co—75 Warren St  
Twinvolute Pump and Mfg Co—30 Church St  
Western Elec Co—463 West St and 105 W 40th St

### Refrigeration

Automatic Refrigerating Co—50 East 42d St  
Brunswick Refrigerating Co—30 Church St  
Electrical Refrigerating Co Inc The—Woolworth  
Building  
Johns-Manville Co H W—41st St & Madison Ave  
Montclair Refrigerating Corp—Woolworth Bldg  
Shipley Const & Sup Co—Columbia St Bklyn N Y  
Triumph Ice Machine Co—30 Church St  
Voss Ice Mach Works—242-252 East 122d St

### Signs

Adams Bagnall Co—114 Liberty St  
B & B Sign Company—347 Fifth Ave  
Bilt-Well Sign System (Elec) 113-115 E 15th St  
Bofinger Bros—146 East 42d St  
Commercial Sign Co Inc—440 W 46th St  
Empire Elec Sign Co—162 East 118th St  
Federal Sign System (Electric)—649 W 43d St  
Fricker Frederick—430 11th Ave  
Frink I P—24th St and 10th Ave  
Gude Co O J—220 W 42d St  
Halpern Bros—210 West 26th St  
Manheimer Co The—162 W 34th St  
Martin P J—306 W 53d St  
Mechling Charles J—477 Willis Ave  
Mercantile Adv Co—17 Battery Pl  
Norden Electric Sign Co Inc—311 W 40th St  
Opal Sign Co—254 Tenth Ave  
Pisch Electric Sign Co Inc The—415 W 48th St  
Prismlyte Co The—8 St Felix St Brooklyn  
Snow & Co—531 W 46th St  
Rice Geo H Co Inc—481-87 Sterling Pl Bklyn  
Strauss & Co—209 W 48th St  
Strauss L L—74 W 125th St  
Universal Elec Stage Ltg Co—240 W 50th St  
Wertheimer Sign Co—558 W 36th St



# The New York Edison Directory

## Manufacturers and Agents (Concluded)

### Sign Flashers

Betts & Betts—511 W 42d St  
Phelps Mfg Co—729-31 Broadway  
Reynolds Elec Co—1123 Broadway

### Supply Dealers

#### Manhattan

Alpha Elec Co Inc—116-118 W 29th St  
Baily Elec Supply Co—62 Vesey St  
Bohn Elec Co C C—820 6th Ave  
Bunnell & Co J H—32 Park Pl  
Burnet Co The—69 South St & 1800 Park Ave  
Central Electrical Supply Co—4 West 16th St  
Crannell, Nugent & Kranzer Inc—110 W 30th St  
Fox Electrical Corporation—119 W 42d St  
Fullerton Electric Co—109-115 W 26th St  
Goetz A E—55 Barclay St  
Hartt & Morison—780 Sixth Ave  
Killoch Co David—57 Murray St  
Latham & Co E B—4 Murray St  
Leahy John J—48 Dey St  
Leveridge Chas W Inc—133 Liberty St  
Manhattan Electrical Supply Co—17 Park Pl  
110 West 42d St, 127 West 125th St  
Metropolitan Elec Products Co—101 W 42d St  
Metropolitan Elec Supply Co—126 W 36th St  
N W Elec Equip Co—35 Vestry St  
Ostrander & Co W R—371 Broadway  
Public Electrical Supply House—62 Essex St  
Royal-Eastern Elec Sup Co—114 W 27th St  
Sibley-Pitman—19-21 West 36th St  
Smith J M & Son—4 E 8th St  
Thomas & Betts Co—105 Hudson St  
Western Elec Co—463 West St and 105 W 40th St

#### Bronx

Bronx Elec Supply Co The—612 Melrose Ave  
Royal Eastern Supply Co The—506 Willis Ave  
Webber Supply Co The—558 Melrose Ave

### Electro-Plating Apparatus and Supplies

Bogue Electric Co C J—513-15 W 29th St  
Green Electric Co W—81 Nassau St  
Munning-Loeb Co—50 Church St

### Specialties

Aladdin Lamp Corporation—52 Vanderbilt Ave  
Bonnell & Co W A—132 Church St  
Bromley-Mercedes Mfg Co Dishwashing Machines—1328 Broadway  
Brown Elec Co Wm S—3 W 29th St  
Chapin Co Chas E—201 Fulton St  
Corliss Carbon Co—114 Liberty St  
Cutler-Hammer Mfg Co The—50 Church St  
DeVeau Tele Mfg Co—472 18th St Bklyn N Y  
Electric Fountain Co The—348 W 42nd St  
Fox Electrical Corporation—119 W 42d St  
Frantz Premier Distrib Co Inc—119 W 42d St  
Fulton-Bell Co—105 W 40th St  
Howe Scale Co of N Y The—341 Broadway  
Kirkman Eng Corporation—237 Lafayette St  
Mercantile Adv Co—17 Battery Place  
Organ Arthur—114 Liberty St  
Pittsburgh Electric Spec Co—412 8th Ave  
Shelton Electric Co—30 E 42d St  
Universal Elec Stage Light'g Co—240 W 50th St  
Wallace Novelty Co Inc The—25 E 24th St  
Ward Leonard Electric Co—Mount Vernon N Y  
White J H Mfg Co—111 No 3rd St Brooklyn  
Wicks Electric Co—Cleveland Ohio

### Switch and Distributing Boards

Anderson Mfg Co A & J M—135 Broadway  
Automatic Switch Co—4-6 White St  
Crouse Hinds Co—30 Church St  
Empire Eng'g & Supply Co—1 Dominick St  
General Electric Co—30 Church St  
Johns-Manville Co H W—Mad Ave & 41st St  
Krantz Mfg Co—160 Seventh St Bklyn  
Le Baron B Johnson—Madison Ave & 41st St  
Metropolitan Elec Mfg Co—Long Island City  
Metropolitan Engineering Co—35 Vestry St  
Pringle Elec Mfg Co—39 Cortlandt St  
Rall Frederick—19 Park Pl  
Sprague Electric Works—527 W 34th St  
Trumbull Electric Mfg Co—114 Liberty St  
Walker Electric Co—50 Church St  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

### Vacuum Cleaners

Bohn Electric Co C C (Santo)—820 Sixth Ave  
Comstock Associate Co (Sturtevant)—101 Park Avenue  
Duntley Products Sales Co—295 Fifth Ave  
Federal Sign System (Electric)—649 W 43d St  
Fox Electric Corp (Hoover)—119 W 42d St  
Frantz Premier Distrib Co Inc—119 W 42d St  
Hartt & Morison—780 Sixth Ave  
Hurley Machine Co (Thor)—147 W 42nd St  
Innovation Electric Co—585 Hudson St  
Metropolitan Elec Products Co—101 W 42d St  
Muenzen Specialty Co—131 W 42d St  
Ohio Co The—1463 Broadway  
Regina Co—47 West 34th St  
Richmond Radiator Co—1480 Broadway  
Sloane W & J (Invincible) Fifth Ave and 47th St  
Spencer Turbine Cleaner Co—101 Park Ave  
Tucc Company The—1457 Broadway  
Univ Vacuum Cleaner Maint Co—47 W 38th St  
Western Elec Co—463 West St and 105 W 40th St

### Vibrators and Hair Dryers

Barker Metal Furniture Co—255 Canal St  
Fox Electrical Corporation—119 W 42d St  
Hartt & Morison—780 Sixth Ave  
Jorgensen John—114 Liberty St  
Kandem Electric Co Inc—49 E 21st St  
Manhattan Electrical Supply Co—17 Park Place,  
110 West 42d St, 127 West 125th St  
Sanax Co In—1c The 25 E 23d St  
Shelton Elec Co—30 E 42d St  
Sibley-Pitman—19-21 W 36th St  
Western Elec Co—463 West St and 105 W 40th St

### Washing Machines

Brokaw-Eden Mfg Co (The Eden)—119 W 42d St  
Federal Sign System (Electric)—649 W 43d St  
Fox Electric Corp (Eden)—119 W 42d St  
Hart Wallace B—(Arora) (Judd) (1900)  
(Cataract)—46 E 41st St  
Home Devices Corp (Modern Home Washers)  
—Bush Terminal Brooklyn  
Hurley Machine Co—147-157 W 42d St  
National Sewing Machine Co—290 Broadway  
Northwestern Electric Equipment Co (Geyser)—  
35 Vestry St  
Sibley-Pitman—19-21 W 36th St  
Wemlinger Co Inc The—40 Whitehall St  
Western Elec Co—105 W 40th St and 463 West St

### Welders

Lincoln Electric Co—149 Broadway  
Welding Materials Co—114 Liberty St  
Westinghouse Electric & Mfg Co—165 Broadway  
Winfield Elec Welding Machine Co—50 Church St



# The New York Edison Directory

## Wiring and Installation Contractors

### West of Broadway and Fifth Avenue

Amsterdam Ave 868—Joseph Rice  
 Amsterdam Ave 943—P D Dunn  
 Amsterdam Ave 984—Sam A Grice & Co  
 Amsterdam Ave 1768—The Lincoln Electric & Repair Shop  
 Amsterdam Ave 1989—Manhattan Electrical Maintenance Company  
 Broadway 212—Charles S Borger  
 Broadway 335—Park Sullinger  
 Broadway 853—J Menkes  
 Broadway 1123—William J Shore  
 Broadway 1133—Van Wagoner-Linn Cons Co  
 Broadway 1170—Alliance Electric Co Inc  
 Broadway 1270—Croker National Fire Prevention Engineering Company  
 Broadway 1402—Gagen & Butler  
 Broadway 1929—F W Astarita  
 Broadway 1931—Bull-Duroy Electric Co  
 Broadway 1960—E May Inc  
 Broadway 2304—C E MacCabe  
 Broadway 2304—Frank B Widmayer Co  
 Broadway 2382—Howard S Beidleman  
 Canal St 313—Oneida Electric Co  
 Canal St 417—G E Engineering Co  
 Canal St 417—The Maintenance Co  
 Christopher St 41—W Buch  
 Church St 30—L K Comstock & Co  
 Church St 50—William Braun  
 Columbus Ave 220—Thomas F Carr  
 Columbus Ave 348—H Blumenstetter  
 Columbus Ave 517—Samuel Millinger  
 Columbus Ave 549—Hoffman & Elias  
 Columbus Ave 847—Mariposa Electric Co  
 Cortlandt St 26—Cleveland & Ryan  
 Cortlandt St 39—Blackall & Baldwin Co  
 Cortlandt St 84—Bleye Elec Co  
 Duane St 172—Jas F Hughes Co  
 Eighth Ave 461—A J Buschmann Co  
 Eighth Ave 461—Edward B Stott & Co  
 Eighth Ave 766—H Lauer & Co  
 Fifth Ave 75—H M Walter  
 Fifth Ave 320—J P Hall-Smith Co  
 Fifth Ave 503—Alfred U Keedwell & Co  
 Fulton St 237—General Electric Inspection Co  
 Greenwich St 183—Thomas & Johnson  
 Greenwich St 255—Garret M Ross  
 Hudson St 585—S Edw Eaton & Co  
 Liberty St 120—S Arthur Brown & Co  
 Liberty St 120—Watson-Flagg Engineering Co  
 St Nicholas Ave 1048—George E Ryan Co Inc  
 Sixth Ave 440—A Goldman & Co Inc  
 Sixth Ave 617—Zenker & Siems  
 Sixth Ave 632—John J Finn  
 Sixth Ave 819—Thomas Hindley & Son  
 Sixth Ave 820—C C Bohn Electric Co  
 Sixth Ave 882—P McGunnigle & Son  
 Sixth Ave 906—R A Schoenberg & Co  
 Sixth Ave 1009—John T Whitehead & Son  
 Seventh Ave 360—Louis Freund  
 Seventh Ave 422—Franklin Elec Co  
 Seventh Ave 2286—Nathan Zolinsky

Tenth Ave 466—George E Valley & Bros  
 Tenth Ave 578—Chas F Dunker  
 Thames St 27—McLeod Ward & Co  
 Varick St 143-145—H C Griffin & Co Inc  
 Vesey St 53—F A Frey  
 West Broadway 170—J S Bihin  
 West Broadway 490—X L Machine & Elec Co  
 West End Ave 165—F W Astarita  
 West St 116—Knickerbocker Electric Co  
 West 12th St 101—C S Harris  
 West 17th St 108—Manhattan Elec Cont Co  
 West 17th St 142—Harry A Hanft  
 West 26th St 101—Pruver Electric Co  
 West 30th St 114—Tucker Elec Construction Co  
 West 31st St 109—Jandous Elec Equip Co Inc  
 West 33d St 221—E-J Elec Installation Co  
 West 34th St 20—Harry Alexander Inc  
 West 34th St 110—Nimis & Nimis Inc  
 West 35th St 147-49—N Y Elec Installation Co  
 West 39th St 42—J Fischer Electric Co  
 West 40th St 105—Lord Electric Co  
 West 40th St 337—William W Ritchie  
 West 40th St 447—Manhattan Engineering Co  
 West 40th St 458—George L Ford  
 West 42d St 25—William D Munro  
 West 42d St 112—Oberg Blumberg & Bleyer  
 West 42d St 121—Conduit Wiring Co  
 West 42d St 229—M Schweiger & Co Inc  
 West 42d St 314—A & A Electric Co  
 West 45th St 56—Russell & Co  
 West 45th St 100—Robert Bernecker  
 West 48th St 209-13—Strauss & Company Inc  
 West 53d St 207—Wm A Brown  
 West 53d St 243—W E Nichols  
 West 59th St 401—John T Williams Co  
 West 72d St 176—Kaufman & Burkert  
 West 83d St 121—C A Christesen  
 West 99th St 146—John A Marcato Co  
 West 100th St 204—L Koehler  
 West 116th St 138—P Simpson  
 West 116th St 227—Lewis S Davis  
 West 125th St 71-75—H Kaufman  
 West 125th St 74—Lawrence L Strauss  
 West 125th St 215—M J Heller Elect Co  
 West 125th St 247—Planet Elec & Sup Co  
 Wooster St 12—Durbrow & Hearne Mfg Co

### East of Broadway and Fifth Avenue

Beckman St 74—Jordan Bros Const Co  
 Bible House 78—Thos C Miller  
 Beaver St 42—Hanover Elect Co  
 Broome St 114—B H Weinberg  
 Broome St 434—The Globe Electric Contracting & Repairing Company  
 Cedar St 16—Wm Truswell & Son  
 Chrystie St 155—A Fox  
 Dover St 8—Hazazer Electric Co Inc  
 East Houston St 93—I Berkowitz  
 East 3d St 48—B Ackerman Co  
 East 3d St 136—H A Schreiber  
 East 5th St 416—Frank Bloom  
 East 8th St 4—J M Smith & Son  
 East 8th St 48—American Pressing Iron Co  
 East 13th St 2—B W Sandbach & Co  
 East 14th St 409—S Newberger

# The New York Edison Directory

## Department Stores which Sell Electric Appliances

Adams-Flanigan Co—Westchester & Third Ave  
Bronx Basement  
Barnett Bros—Columbus Ave & 74th St  
Basement  
\*Bloomingdale Bros—59th St & Third Ave  
Basement  
John Daniell Sons—759 Broadway Basement  
\*Gimbel Bros—6th Ave & 33d St Fifth Floor  
\*J B Greenhut & Co—6th Ave & 18th St  
Basement  
H C F Koch & Co—132 W 125th St Basement  
Lewis & Conger—Sixth Ave & 45th St First Floor

Liggett-Riker-Hegeman Drug Stores  
\*Lord & Taylor—5th Ave & 38th St Fifth Floor  
\*James McCreery—5 W 34th St Sixth Floor  
\*R H Macy & Co—Broadway & 35th St  
Basement  
Rothenberg & Co—34 W 14th St Basement  
Stern Bros—41 W 42d St Fourth Floor  
\*John Wanamaker—Broadway & 10th St  
Seventh Floor

\*These stores maintain special electrical departments where wide varieties of electric household appliances are always displayed.

## Manufacturers and Agents

### Arc Lamps

Adams Bagnall Co—114 Liberty St  
Bogue Electric Co C J—513-15 W 29th St  
Cooper-Hewitt Elec Co—730 Grand Street  
Hoboken N J  
General Electric Co—120 Broadway  
General Illuminating Co—369 Broadway  
Hallberg J H—38 E 23d St  
Kandem Electric Co Inc—49 E 21st St  
Stave Electrical Co—131 Hudson St  
Western Elec Co—463 West St and 105 West  
40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wohl M J & Co—211 Fulton St Brooklyn N Y

### Mercury Vapor Lamps

Cooper-Hewitt Elec Co—730 Grand Street Ho-  
boken N J  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

### Automobiles

C—Commercial I—Industrial P—Passenger  
Anderson Electric Car Co of N Y (Detroit Elec-  
tric)—Central Park West at 62d St (C & P)  
Atlantic Elec Vehicle Co—52 Vanderbilt Ave (C)  
Automatic Transportation Co—258 B'way (I)  
Baker R & L New York Corporation The—  
Central Park West at 62d St (P)  
Buda Co of Chicago—30 Church St (I)  
Comm'l Truck Co of America—30 E 42d St (C)  
Couple Gear Co—(Clarence L Smith Co Agents)  
—544 W 30th St (C)  
Cowan Truck Co—114 Liberty St (I)  
Electric Automobile Sales Corp—Times Bldg (C)  
Electro Coach Corp—30 Church St (Busses)  
Elwell-Parker Electric Co (Lucian C & G W  
Brown Agts)—50 Church St (I)  
Field Omnibus Co—149 Broadway (Busses)  
General Vehicle Co—30 East 42d St (C) (I)  
Healey & Co—Broadway and 51st St (P)  
Hoagland-Thayer Inc—383 Halsey Street  
Newark N J (I)  
Hunt Co C W Inc—61 Broadway (I)  
Lansden Co Inc The—Flatbush & Nostrand  
Aves Brooklyn (C)  
Lansing Co—288-9 West St (I)  
Mercury Mfg Co—(Truck & Tractor Co Agents)  
25 Church St  
Ohio Electric Car Co (Robt W Schuette Agent)  
—236 West 54th St (P)  
Orenstein-Arthur Koppel Co—30 Church St (I)  
Walker Vehicle Co—Grand Central Terminal  
Room 3709 (C)  
Ward Motor Vehicle Co—Mt Vernon N Y (C)

### Charging Apparatus

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—Belleville N J

Electric Products Co The—30 E 42d St  
General Electric Co—120 Broadway  
Industrial Controller Co—50 Church St  
Lincoln Electric Co—149 Broadway  
Northwestern Electric Co The—1457-63 B'way  
Wagner Electric Mfg Co—30 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Elec & Mfg Co—165 Broadway

### Charging Apparatus for Ignition, Starting and Lighting Batteries

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—Belleville N J  
Edison Thomas A Inc—141 Lakeside Ave  
Orange N J  
Electric Products Co—30 E 42d St  
General Electric Co—120 Broadway  
Lincoln Electric Co—149 Broadway  
Robbins & Myers Co—30 Church St  
Wagner Electric Mfg Co—50 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Electric & Manufacturing Co—  
165 Broadway

### Electric Garages

Acker Merrill & Condit Co—523 W 46th St (C)  
Exide Battery Depots Inc  
East Side Garage—141 E 25th St (C)  
North Side Garage—West End Ave & 64th St (C)  
West Side Garage 527-41 W 23d St (C)  
International Motor Co—West End Ave & 63d  
St (C)  
No Moore St Garage—56-62 No Moore St (C)  
Piercy Contracting Co—422 W 15th St (C)  
Proud Elec Co T I—114 W 54th St (P)  
The Electric Garage—Central Park West & 62d  
St (P)  
The 474 West 130th Street Garage Inc—474 W  
130th St (C)  
Wright's Garage Inc—600 W 158th St (P)

### Mechanical and Battery Parts

Anderson Electric Car Co—Central Park West  
at 62d St  
Anderson Mfg Co Albert & J M—135 Broadway  
Baker R & L New York Corporation The—  
Central Park West at 62d St  
Edison Storage Battery Co—204-206 W 76th St  
Electric Garage—Central Park West & 62d St  
Electric Storage Battery Co The—100 B'way  
Exide Battery Depots Inc—2 West End Ave and  
64th St  
Gassaway F S Inc—212 E 54th St  
General Lead Batteries Co—1790 Broadway  
Gould Storage Battery Co The—30 E 42 St  
Guarantee Electric Products Co—47 W 42d St  
Phila Storage Battery Co—American Building  
Broadway and 58th St  
Storage Battery Supply Co—239 East 27th St



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Mechanical and Battery Parts (Concluded)

Walker Vehicle Co—531 W 46th St  
Willard Storage Bat Co The—228-30 W 58th St

### Buffers—Polishers

Bogue Electric Co C J—513-15 W 29th St  
Fort Wayne Electric Works of the General Electric—Co—30 Church St  
General Electric Co—120 Broadway  
Green Electric Co The W—81 Nassau St  
Holtzer-Cabot Electric Co—83 Warren St  
Munning-Loeb Co—Canal & Sullivan Streets  
Robbins & Myers Co The—30 Church St  
Westinghouse Elec & Mfg Co—165 Broadway

### Clocks—Time Stamps and Recorders

Betts & Betts Corporation—511-13 W 42d St  
Holtzer-Cabot Electric Co—83 Warren St  
Howard Electric Clock Co—Maiden Lane & William St  
Walker Bros & Haviland—50 Church St

### Coffee Mills

Boker H & Co Inc—101-103 Duane St  
Canton Electric Cut Co—11 E 125th St  
Coles Mfg Co—419 Long Beach Bldg  
Deer Co A J—55 West 63d St  
Hobart Mfg Co Inc The—24 East 21st St  
Howe Scale Co of N Y The—341 Broadway  
Jacobs Bros Co Inc—78 Warren St

### Drills and Grinders (Portable)

Chicago Pneumatic Tool Co—52 Vanderbilt Ave  
Cincinnati Electrical Tool Co—50 Church St  
Electro-Magnetic Tool Co—426 Broome St  
Hisey Wolf Machine Co—50 Church St  
Standard Electric Tool Co—30 Church St  
United States Electrical Co—50 Church St  
Van Dorn Electrical Tool Co—30 Church St

### Electro-Therapeutic and Dental Apparatus

American Sterilizer Co—Erie Pa  
American X-Ray Equip Co—401-405 E 31st St  
Edmonds Walter S—134 Congress St Boston Mass  
General Acoustic Co—Acousticon for the Deaf 220 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hanovia Chemical & Mfg Co—30 Church St  
Harper Orlphone Co (Instruments for the Deaf) —303-305 Fifth Avenue  
Hospital Supply Co The—53-55 Fifth Avenue  
Hotpoint Elec Heating Co—147 Waverly Pl  
Hughes Co The J W—110 E 23d St  
Johns-Manville Co H W—41st St & Madison Ave  
Kny-Scheerer Co The—404-410 West 27th St  
MacAlaster Wiggin Co—66 Broadway Cambridge Mass  
Meyrowitz E B Inc—237 Fifth Ave  
Metropolitan Eng Co—35 Vestry St  
Neel-Armstrong Co—29 W 34th St  
Pelton & Crane Co—Detroit Michigan  
Pittsburgh Electric Specialties Co—412 Eighth Ave (lamps only)  
Prometheus Elec Co The—232 E 43d St  
Ritter Dental Mfg Co—Fifth Ave Building

Sanax Co Inc The—125 E 23d St  
Shelton Elec Co—30 W 42d St  
Simplex Electric Heating Co—120 W 32d St  
Sorensen C N Co Inc—177 E 87th St  
Tiemann Co George—107 E 28th St 107 Park Row  
Trenaman Dental Mfg Co—107 W 25th St  
Victor Electric Co—110 E 23d St  
Vioray Mfg Co—915 Whitlock Ave Bronx  
Waite & Bartlett Mfg Co—252-258 W 29th St  
Wappler Elec Mfg Co Inc—173 E 87th St  
Westinghouse Electric & Mfg Co—165 B'way  
White Dental Mfg Co S S—5 Union Square  
Williams Roger—120 W 32d St  
Wolff Co Wm F—501 W 145th St

### Elevators—Dumbwaiters

American Elevator Co—117 Cedar St  
Burdett-Rowntree Mfg Co—119 W 40th St  
Burwak Elevator Co—216 Fulton St  
Dowdall Chas E Inc—152 W Broadway  
General Elevator Co—29 Broadway  
Gurney Elevator Co—62-64 W 45th St  
Jordan Bros Inc—74 Beekman St  
Maintenance Co The—417-421 Canal St  
National Elevator Co—62-64 W 45th St  
New York Elevator Co—50 Grand St  
Otis Elevator Co—11th Ave and 26th St  
Reedy Elevator Co—202 Ninth Ave  
Roberts Elevator Co Jas H—439 W Broadway  
Sedgwick Machine Works—128 Liberty St  
See Elec Elevator Co A B—220 Broadway  
Warner Elev Mfg Co—113 Warren St  
Warsaw Elevator Co—216 Fulton St  
Wheeler McDowell Elev Co—417 Canal St

### Fans, Blowers and Air Compressors

Adams Bagnall Co—114 Liberty St  
Allis-Chalmers Co—50 Church St  
American Blower Co—141 Broadway  
Beach-Russ Co—220 Broadway  
Boker H & Co Inc—101-103 Duane St  
Brunner Mfg Co—30 Church St  
Century Electric Co—30 Church St  
Clayton Air Compressor Works—115 Broadway  
Curtis & Carhart Inc—150 Chambers St  
Curtis Pneumatic Machinery Co—30 Church St  
Diehl Mfg Co—149 Broadway  
Eck Dynamo & Motor Co—46 W Broadway  
Federal Sign System (Electric)—649 W 43d St  
Fox Electrical Corporation—119 W 42d St  
Garner Ventilating Co—136 Liberty St  
General Electric Co—120 Broadway  
Gerdes Theo R N—123 Liberty St  
Hunter Fan & Motor Co—114-118 Liberty St  
Ilg Elec Vent Co—13 Park Row  
Kandem Electric Co Inc—49 E 21st St  
Kinetic Engineering Co—41 Park Row  
Koithan & Pryor—39 Cortlandt St  
Kragh C W—184 Hudson Ave  
Laidlaw-Dunn-Gordon Co—115 Broadway  
Manhattan Electrical Supply Co—17 Park Place 110 West 42d St, 127 West 125th St  
National Brake & Elec Co—165 Broadway  
Robbins & Myers Co The—30 Church St  
Smucker Arthur C—30 Church St  
Sorensen Co Inc C M—177 East 87th St  
Sprague Electric Works—527 W 34th St  
Strauss L L (For Rent)—74 W 125th St



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Blowers, Air Compressors (Concluded)

Grant B F Co—50 Church St  
 on Fan Company—1544 Broadway  
 n Elec Co—463 West St & 105 W 40th St  
 ighouse Elec & Mfg Co—165 Broadway  
 ighouse Traction Brake Co—165 B'way  
 J Mfg Co—352-362 W 13th St

### Fire Alarm Systems (Interior)

all Co—30 Church St  
 atic Fire Alarm Co—416 Broadway  
 ls Co—Exterior St Bronx  
 ge Chas W Inc—133 Liberty St  
 olitan Elec Protective Co—130 W 26th St  
 ler & Co W R—22 Dey St  
 M Co—221 West 33rd St

### Fixtures and Portables

& Sons Inc—101 Park Ave  
 in Electric Mfg Co—114 Liberty St  
 ls Boyd—17 E 47th St  
 ll Co Edward F—36-40 West 15th St  
 ghting Fixture Co Inc—107-9 W 13th St  
 Sign System (Electric)—649 W 43rd St  
 Mfg Co Robt—28 Warren St  
 ach Mfg Co The—159 E 54th St  
 etrical Corporation—119 W 42d St  
 Mfg Co E P—37 Murray St  
 E—55 Barclay St  
 Gas & Elec Fix Co—157-59 E 128th St  
 Co The R C—19-21 W 36th St  
 Electric Co Inc—49 E 21st St  
 g Studios Co—220 W 42d St  
 on & Co J Inc—70 East 45th St  
 lin & Co H G—38 Warren St  
 h & Son Joseph P—9 West 42d St  
 & Co Leon—1304 Boston Road  
 olitan Elec Supply Co—126 W 36th St  
 Co Edward—68-70 Park Place  
 Vance Co The—294 Madison Ave  
 ron Works Elmer P—136 Liberty St  
 l X-Ray Reflector Co—21 W 46th St  
 s & Elec Appliance Co—569-571 B'way  
 Co The Chas—32 Warren St  
 gh Lamp Brass & Glass Co—35 W 23d St  
 Heidelberg Inc—54 W 37th St  
 & Aronson—20 Warren St  
 Pitman—19-21 W 36th St  
 Co C—4149 Park Ave Bronx  
 Co The—20 Rose St  
 Lighting Fixture Co Inc—386 Second Ave  
 Lighting Fixture Co—61 Warburton  
 onkers N Y  
 Bronze Co—18 East 40th St  
 Craft Studio—333 Fourth Avenue  
 Phillips Co—Park Ave & 40th St  
 E—157 East 44th St  
 Elec Co—463 West St and 105 W 40th St

### Street Fixtures

Bagnall Co—114 Liberty St  
 Foundry Co—90 West St  
 o John—253 Broadway  
 Electric Co—120 Broadway  
 ron Works Inc E P—136 Liberty St  
 on Works J L—118 Fifth Ave  
 ouse Electric & Mfg Co—165 B'way

### Globes—Reflectors

Adams Bagnall Co—114 Liberty St  
 Dealing William—1 Hudson St  
 Fox Elec Corp The—119 W 42d St  
 Frink I P—24th St & 10th Ave  
 Gillender & Sons Inc—19 Madison Ave  
 Gleason-Tiebout Glass Co—200 Fifth Ave  
 Haskins Glass Co—98 Park Pl  
 Holophane Glass Co Inc—340 Madison Ave  
 Hubbell Harvey Inc—30 East 42d St  
 "Ivanhoe-Regent Works" of the General Elect  
 Company—105 W 40th St  
 Jefferson Glass Co—220 W 42d St  
 Lighting Studios Co—220 W 42d St  
 Macbeth-Evans Glass Co—143 Madison Ave  
 Morgan & Sons John—61 East 9th St  
 Northwood Co H—19 Madison Ave  
 Organ Arthur—114 Liberty St  
 Phoenix Glass Co—230 Fifth Ave  
 Harry Pickhardt—98 Park Place  
 Pittsb'g Lamp Brass & Glass Co—35-37 W 23d St  
 Straight Filament Lamp Co—42 E 23d St  
 Weeks Nelson—214 State St Brooklyn N Y  
 Wilkinson Co—93 Underhill Ave Brooklyn N Y

### Heating and Cooking

American Elec Heater Co—Detroit, Michigan  
 Bohn Elec Co C C—820 6th Ave  
 Boker H & Co Inc—101-103 Duane St  
 Cutler-Hammer Mfg Co The—144th St and  
 Southern Boulevard  
 Dover Mfg Co—30 Church St  
 Federal Sign System (Electric)—649 W 43d St  
 Fox Electrical Corporation—119 W 42d St  
 General Electric Co—120 Broadway  
 Guarantee Electric Products Co—47 W 42d St  
 Hotpoint Electric Heating Co—147 Waverly Pl  
 Hughes Electric Heating Co—Chicago Ill  
 Johns-Manville Co The H W (Heating Pads)  
 41st St and Madison Ave  
 Manhattan Electrical Supply Co—17 Park  
 Place, 110 West 42d St, 127 West 125th St  
 Metropolitan Elec Prod Co Inc—101 W 42d St  
 National Elec Utilities Corp—103 Park Ave  
 Pelouze Mfg Co—32 Park Place  
 Phelps Mfg Co—2 Astor Place  
 Pittsburgh Elec Specialites Co—412 8th Ave  
 Prometheus Electric Co The—232 E 43d St  
 Reimers Mfg Co—130 Church St  
 Sibley-Pitman Elec Corp—19-21 W 36th St  
 Simplex Electric Heating Co—120 W 32d St  
 Western Elec Co—463 West St and 105 W 40th St  
 Wicks Electric Co—Cleveland Ohio  
 Williams Roger—120 West 32d St  
 Westinghouse Elec & Mfg Co—165 Broadway  
 Wood Electric Co C D—441 Broadway

### Ironing Machines

American Ironing Machine Co—46 E 41st St  
 Bergbom & Roberg—46 E 41st St  
 Fox Elec Corporation (Simplex)—119 W 42d St  
 Wallace B Hart (Roma)—46 E 41st St  
 Hurley Machine Co—147 W 42d St

### Horse Clippers

Gillette Clipping Machine Co—110 W 32d St

### Low Voltage Direct Current Bell

### Ringers

U S E M Co—301 West 37th St



# The New York Edison Company

## General Offices

Irving Place & 15th St  
Telephone Stuyvesant 5600

BRANCH OFFICES	TELEPHONE
424 Broadway	Canal 8600
126 Delancey St	Orchard 1960
10 Irving Place	Stuyvesant 5600
124 W 42d St	Bryant 5262
151 East 86th St	Lenox 7780
15 East 125th St	Harlem 4020
362 East 149th St	Melrose 9900

All showrooms open until midnight

EMERGENCY NIGHT AND SUNDAY  
CALL—FARRAGUT 3000

### *Territory Served by the Various Supply Offices*

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Sts, west of the Bowery and south of Catharine St

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and South of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



*"At Your  
Service"*





VOLUME X

AUGUST, 1917

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## The Edison Monthly

**The Edison Monthly**  
Published by  
**The New York Edison Company**  
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N F BRADY, President  
JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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On July first the maximum rate for Edison Service in Manhattan and the Bronx was reduced to seven cents a kilowatt hour. This reduction following that of January first marks another step in the series of lowerings in the cost of electricity that have been coincident with technical and manufacturing development in the central station industry.

While other commodities are steadily advancing in cost electricity is getting cheaper. Frequent reductions in rates accompanied by corresponding improvement in incandescent lamp manufacture have made it possible to secure now the same degree of illumination for fifty cents that would have cost \$7.50 thirty-five years ago.

These new rates will make electricity still further available for domestic uses and accompanied by an increased application of motor-driven household appliances will make possible a new degree of efficiency and economy in home management.



To the speed enthusiast and the tourist the electric passenger car has been recognized as a thing of beauty and not much else. As for long journeys—"impossible," they said.

All of which is refuted by the recent trip of an electric passenger car from New York to Atlantic City and return. The journey down was made on June 18 and the return trip was made the next day. The 123 miles from Atlantic City to New York were covered in five hours and fifty-seven minutes, an average of twenty and one half miles an hour. The maximum speed attained was twenty-eight miles. During luncheon at Lakewood the battery was given a boost of an hour and a half, making the elapsed time from Atlantic City to New York a little less than seven hours and a half.



The trip was in no sense a "stunt." Nor was it undertaken to demonstrate that electric cars should be expected to make such trips as a regular thing. It is readily conceded that the man who makes trips upwards of hundreds of miles must have a vehicle of greater speed and one which can be refueled in very little time. Rather this trip serves to demonstrate that if necessary the electric can make such a journey—that an electric purchased primarily for service in the city need not be limited to a restricted territory, and that the prospective purchaser of a storage battery vehicle need not hesitate because he fears a limited operating radius.



As one of the essentials of house-keeping, the vacuum cleaner has long since established itself. It was designed for this task with little thought that it would ever find wide application in any other sphere.

## The Edison Monthly

But today—with impressive regularity come reports of the use of this household tool in unusual ways. It has been used to groom horses, to assist in the make-up of circus elephants, and even to rid a grocery store window of flies.



Just a few days ago two furriers visited the offices of this company in search of advice as to a safe way to clean their stocks. A Board of Health regulation prohibits the beating of furs with the incidental scattering of dust. Such a prohibition is warranted at all times and especially now with the several cases of anthrax in mind. The furriers had heard of the performances of the vacuum cleaner and they wanted to be shown. The forthcoming demonstration convinced them that the device was fully capable of handling the work in hand and orders for two machines were signed at once.



Developed originally for house cleaning purposes, the vacuum cleaner is proving itself indispensable in almost every line of industry, not only as a cleaning device but as an agent for the removal of dangerous dust and fumes incident to manufacturing processes.



For those who looked beneath the surface, the early summer celebrations in honor of the visiting foreign missions were full of interesting features aside from their political significance. Not the least appealing of these fea-

tures was the "how" of the electrical illumination, as described elsewhere in this issue of THE EDISON MONTHLY.



Since the Panama-Pacific Exposition and the more recent illumination of the Statue of Liberty, the term "flood lighting" has become almost common. But while newspapers and popular magazines have used the term with a degree of familiarity, few, if any, have attempted to explain the method in terms understandable by the man on the street.

With flood lighting installations at so many prominent places during the visits of the foreign delegations there was an unusual opportunity between ceremonies to study the technic of the method at first hand and close up. That the opportunity was not slighted is evidenced by the numbers who gathered around the platforms upon which were mounted the batteries of high powered lamps with their conical shaped hoods and reflectors. Electricians engaged in the work of installation report that many inquiries were made as to the operation of the system.



And in most cases it was not an inquiry based on idle curiosity but on a genuine interest in this newest and most effective method of outdoor festival illumination.

As an outdoor display of unusual beauty and effectiveness the illumination will be remembered by the multitude—as an opportunity also to learn something of modern lighting methods the illumination served a purpose much appreciated by those of inquiring mind.



# The Edison Monthly

## The Modest Spark Speaks

Oh, say,  
Look my way  
Will you, please,  
And see what everybody sees.  
I'm only a little electric light,  
Not so big as the tiniest star,  
But, say, when it comes to getting  
in sight,  
I give all the planets a jar.

What?  
You think that's tommyrot?  
Stop, look and listen,  
And watch me while I glisten.

Were you ever in a city,  
Or a town of smaller size,  
On a night when all the planets,  
From their light-plants in the skies  
Were making strenuous efforts  
To light the place? Well, say,  
Was the planet style of service  
Half as lighting as my way?  
Were you ever in a cellar  
Groping round for pickle jars?  
And was it I who found them,  
Or did you use the stars?  
Do you always try the planets  
Instead of trying me  
To find a collar button  
Somewhere you cannot see?  
Is it star illumination  
And not my searching light  
You use to find the keyhole  
When getting in at night?  
Is starlight satisfying  
In climbing up the stairs  
At night, or when you're cracking  
Your shins against the chairs?

Oh, say,  
Take the stars away!  
Or, if you wish to keep them  
As relics from the Ark,  
All right, but have me handy  
To find them in the dark.

*W J Lampton*

# Welcoming a Foreign Mission

WHILE the public has been interesting itself in the political and picturesque sides of the reception to the Italian Mission it has missed perhaps the full importance assumed by electricity in that affair. A glance here behind the bunting and papier-mache that framed the scenes will reveal briefly the extent to which Edison Service played a part.

By far the most notable feature of this as well as the illumination for the Anglo-French Mission was the successful use of flood lighting. In fact the old-time expedient of out-line lighting by means of festoons of

small bulbs was not employed in any case of building treatment. The new arrangement called for flood lamps of 400 watts in projectors mounted in groups upon newly designed platforms or standards.

Two of these groups were needed to bring out the decorations that covered the historic façade of the City Hall. Six units were required for each standard, the rays from which played upon the building from carefully gauged angles. A still more powerful illumination was directed from the roof where big Italian and American flags were lighted in brilliant



*Photographic Bureau of The New York Edison Company*

Concealed Flood Units at Ground Level Threw the Beautiful Pulitzer Fountain into Striking Relief



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*Photographic Bureau of The New York Edison Company*

Flood Lighting from Across the Street Played Upon the Richly Ornamented Facade of the Metropolitan Museum

relief. No less than ten flood-light groups of two units each were needed for this purpose. A still further use of lighting of this type came into play in the Aldermanic chamber within. The dais here was occupied by the Prince of Udine, who spoke in eloquent reply to the city's official greetings. That nothing might be lost of this unique occasion, two 200-watt lamps in projectors were set in the balcony and made to play upon the dais during the function.

While a lighting up of the Washington Arch and the Garibaldi statue close by was not called for at the early hour at which the Mission visited the Square, it was put into effect during the two evenings of the Mission's stay and was greatly enjoyed by the dense population of the vicinity. Four groups of five 400-watt lamps in flood light projectors, each directed their rays upon the Arch from as many angles, throwing into luminous relief not only the structure itself with its sculptures and

garlands but flanking rows of flags and banners displaying the arms of Italy and the United States. The lamp platforms here as in the other decorations about the city were of an inconspicuous green color, and overhead electric connections were made with adjacent street lamp-posts. The statue of the Italian patriot which stood before a handsomely wrought screen of colored panels shone strongly in the light from two banks of flood-lamps set on the lawn across the roadway. A great wreath deposited by the Mission together with festoons of greenery and symbolic features about the pedestal stood out with picturesque sharpness.

The now famous Golden Way into which Fifth avenue transformed itself for three miles was accomplished by the amber staining of over five hundred of the globes that ordinarily crown the Avenue's twin posts. Though the result was an illumination of peculiar softness, the usual amount of light was more than maintained.

## The Edison Monthly

A great electric flag design shown by the Waldorf-Astoria contributed not a little to the appearance of the thoroughfare. This feature, which represented a union of the flags of the two countries, contained the surprising total of 1,340 five-watt lamps in appropriate colors.

However, nothing on the Avenue or at other points compared in picturesqueness with the Court of Honor that occupied the parvis of the Public Library and the entire street communicating. Not only the front but both sides of the terrace displayed festoons of streamer sockets accommodating 30-watt Gem lamps stained red and enclosed in yellow Japanese lanterns. The presence of 250 of these lanterns swaying among the trees gave an effect peculiarly charming.

A similar festoon effect was made use of about the Pulitzer Statue at Fifty-ninth street. The fewness of the trees here, however, necessitated the twining of festoons of colored lights with smilax, among the leaves of which the lamps twinkled with

double attractiveness. The statue itself was treated by flood lighting to remarkable advantage. Such indeed was the skill with which these units were placed that the effect was one of positive luminosity. The trick was turned by concentrating the flood rays as far as possible. Each of the two banks of projectors employed contained six of the usual 400-watt units and instead of being mounted on standards were concealed on the ground.

This seemingly invaluable flood lighting served notably at two remaining points. The Metropolitan Museum where a reception was held on Thursday evening was richly ornamented about the façade with banners and greenery while four caryatids forty feet high supported great medallions of the Bashfield design. As street lamps would have done scant justice to this work, two 12-unit platforms were erected across the Avenue at the proper angles. The result was an illumination clear in every detail.



*Photographic Bureau of The New York Edison Company*

The Garibaldi Statue at Washington Square was Lighted by Two Banks of Powerful Flood Units



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*Photographic Bureau of The New York Edison Company*

**A Typical Group of Projectors Mounted on their Standard. These Installations were Used Extensively in the Recent Flood Lighting**

The other instance referred to was Columbus Circle with the tall statue as its central feature. Both base and shaft had been beautified by greens and flowers, while panels on the four sides represented the four great Allies. The commanding figure of the great Discoverer was made to stand out with luminous emphasis in the light of two five-unit flood groups.

### Long-Distance Telephoning in Denmark

Reports from Copenhagen state that beginning in May, 1917, all conversations on the long distance telephones had to be carried on in Danish, Norwegian, or Swedish.

### American Cars in Spain

**T**HE electric railroad running from Barcelona to Sarria, a distance of nearly three miles, has recently been extended as far as Las Planas, about three and a half miles farther. The new section starts from the station of Sarria, passes through a tunnel 653 feet in length, follows the mountain stream Pomaret, the course of which has been partially diverted, passes through a second tunnel 1,194 feet long, and farther on through a third tunnel of 564 feet. At the portal of this tunnel an underground station has been built, beyond which the line passes through a fourth tunnel piercing the mountain of Vallvidrera. This tunnel, more than a mile long, is the most important work on the extension on account of the difficulties encountered in its construction.

The rolling stock for the line has been especially built to conform to the requirements of the local service and comprises electric motor cars and trailers. The cars were built by a Philadelphia company and are mounted on trucks provided with four motors of 125 horse-power. The passenger cars are closed and are fifty-six feet long, designed for single and double end operation. The cars have a maximum speed of about thirty-seven miles an hour. Freight cars consisting of a platform mounted on two trucks with two compartments for the motorman are also in use both for transporting general merchandise as well as the company's construction material in continuing the line, which in due course will be extended beyond the interior towns of Tarrasa and Sabadell. —*Commerce Reports.*

# Atop the Majestic

**C**OPELAND TOWNSEND, owner of the Hotel Majestic, believes not only that business follows light but that the best light comes from the Central Station. Acting on this conviction, Mr Townsend lately abandoned the hotel's

private electric plant and caused the building to be connected with the Edison mains.

A liberal and tasteful use of the new light is met with in every department of the famous hostelry. In fact, brilliance of effect free from any hint



*Photographic Bureau of The New York Edison Company*

The Hotel Majestic, the Progressive Management of which has Recen'ly Ins'alled Edison Service



## The Edison Monthly

of tawdriness has seldom been more successfully accomplished. Lobby, reception and dining rooms, together with elaborate private suites have been lamped with admirable completeness and restraint.

An extraordinary use of Edison light is being made this Summer on the roof. While roof gardens of one sort or another have been operated about New York for some seasons, this of the Majestic may be called a novel launching. Indeed, the entire space has been decorated and fitted up to represent the decks of an ocean liner.

The realism of the thing is complete from the deck rail of woven rope that encircles the space to the various cabins that ordinarily occur on a steamer deck. These enclosures, which it must be admitted are somewhat larger than the seagoing sort, answer for restaurants, retiring rooms, and a fully equipped gymnasium. The remainder of the roof is taken up by uncovered dining space, tennis and hand-ball courts, and a dance floor. A great American flag floats over the scene in the rays of specially placed electric flood lights.

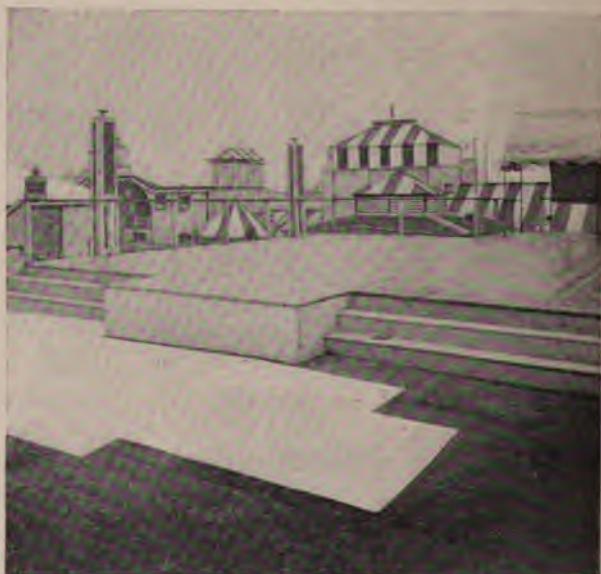
The color scheme of the big garden or, rather, deck, is determined by festoons of red, white and blue electric bulbs strung about the edge. Ornamental upright lamps occupy the spaces among the tables.

A feature contributing largely to the charm of

these surroundings is a suggestion of ships riding at anchor formed by a clever setting of lights among the necessary roof structures on an isolated sector across a shaft. Such is the realism that even the outlines of a supposed wharf can be discerned on the side nearest. This effect combined with the impression gained by night from such an elevation aids materially in carrying out the original idea of a ship's deck on a gala evening.

A still further and notable use of Edison current is found in the hotel basement. This project is none other than a "movie" shooting gallery, where wild animals dash down or across the screen to be shot at by the marksmen. A white light shows the spot where the bullet strikes.

Such a gallery and such a roof garden as that described show the extent to which Edison light can be used as a



*Photographic Bureau of The New York Edison Company*

**"The Deck" Atop the Hotel Creates in Its Pent Houses and Coloring a Realistic Impression Considerably Augmented by Night under Artificial Light**



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

A Corner of the Main Lobby Illustrating the Abundance Yet Good Taste of Lamps and Lighting

feature of hotel attraction. For, when all is said, it is not alone brilliance but the *enduring* and *dependable* brilliance of Central Station current that is making electrical service the success that it is.

### Sample Book Manufacture

THE manufacture of cloth sample cards and sample books may seem a commonplace enough procedure. As a matter of fact it is a highly specialized industry. Proof of this is to be found at the shops of Elder and Turner on Walker street. The two lofts occupied by the firm are crowded with the special requirements of the business. Several hundred square feet of floor space are given over to pressing tables on which the goods to be sampled are ironed free of all creases, while another space of equal size is provided for the long tables at which the samples are actually mounted on cards and bound into books. A model print shop,

peculiarly adapted to the production of cards and suitable bindings, and three large trimming machines are essential parts of the equipment. Still other pieces of apparatus are conveniently located for use as they may be required.

As in so many other fields, electricity plays an important part in the manufacture of sample books. The correct lighting of the tables and the print

shop is of course essential to efficient work, and with the assistance of the illuminating engineers of The New York Edison Company this has been provided. Individual motor drive has been adopted for the presses and cutting machines. The installation of electric irons has proved, perhaps, the greatest boon to the business. The girls who use the irons are enthusiastic over their performance and the result has been a considerably increased output of work per operator.

Another electrically operated piece of apparatus which has been a great time saver is the riveter which binds certain of the books. Before its introduction the holes had to be punched by hand, the rivet inserted, a washer slipped in place, and the soft end hammered flat. The girls who did this work became almost automatic in their movements, but despite this fact the machine now employed is ten times faster than the best of them.



# A Morris Plan Branch

**A**BOUT fifteen years ago, when the southwest corner of Union Square was one of the busiest in the city, the Lincoln Building, fronting the space where the Broadway cars swing around the Square, was a prominent structure of the neighborhood. Mrs Thomas Lynch's big jewelry store which occupied the ground floor was a fashionably patronized establishment; and in the basement below was the well known restaurant of Zweig and Schattau. From 1902 up to the present however the building has seen many changes in tenantry, the ground floor housing at various times wholesale establishments or clothing stores and the basement deteriorating into a dim and dusty storage space.

But now refurbished, the corner once again presents a fresh and animated appearance to the Square. At a considerable cost, both the ground floor and the basement have been remodeled by the Morris Plan Company and aside from convenience of location and accessibility, also form banking quarters worthy of any public institution.

Through the big plate glass windows of the banking room, cheerful sunshine pours for a large part of the day. The fittings here are attractive and suitable. White marble forms

the bases of the tellers' cages and a high marble table in Roman design stands in the center of the room for public use. Railings and bars are of dull brass. A large space facing on University Place where the manager of the branch has his office is equipped with mahogany desk and chairs and



*Photographic Bureau of The New York Edison Company*

**The Basement of the Building Has Been Handsomely Fitted Up as the Application Department. Here a Force of Assistants Interview Prospective Clients of the Company**

bounded by a heavy brass rail. The walls are of cream color, and above the windows beneath the ceiling extends a row of decorative cathedral glass windows. Artificial lighting comes from simple inverted bowls, current being supplied by The New York Edison Company.

In the remodelling of the basement it was necessary to take into account one of the mysterious underground rivers of Manhattan which runs directly under the Lincoln Building. The proximity of this stream neces-



## The Edison Monthly

sitated the building of a drain, while the floor had to be constructed of concrete with a top layer of waterproof cement to avoid possibility of dampness.

The large downstairs space thus afforded is used as the application department. Around one part of it runs a high mahogany wainscoting; the rest has been so well painted by a clever Italian decorator to imitate wainscoting that at a distance it looks

Plan, "Character is the Basis of Credit," the words arranged above and below the diamond which is the Company's trade-mark. At either end of the sign will be two torches in electric lights, which from the Square will look most realistic.

The new branch, probably only the first of several which increasing business will necessitate, has already in its short career not only greatly inconvenienced former borrowers under the company's system, but has attracted much new business.

The business center of the city has moved uptown, it is true, but the neighborhood of the Square is still as accessible as ever from all parts of the metropolis, and the many customers of the company who still prefer to make their payments in person find the new branch ideally situated. It is a gratifying change to the Square also, for recently the grime that obscured the surface of

the Lincoln Building has been thoroughly and scientifically removed, so that the whole forms a spic and span setting for the Morris Plan's quarters.

### Footlights

Sing a song of footlights  
Before they start to glow:  
Four-and-twenty girls as plain  
As any girls you know!

Up goes the curtain,  
Twinkle go their feet:  
In the flood of friendly light,  
Jove, but they look sweet!

*Richard Butler Glaenzer*



*Photographic Bureau of The New York Edison Company*

With Its Marble and Brass Fittings and Its Air of Substantial Newness, the Big Banking Room of the Morris Plan Branch is Attractive Both to the Public and Workers

exactly like the wood. The graceful arabesques of the ceiling, the one fine touch that remained from the days of the restaurant, have been carefully retouched and preserved.

The Company's plan of lending money will later be well advertised to the public by a large and unusual electric sign on the corner of the building, flanked on either side by painted displays visible from a great distance. This electric sign will be in bronze effect with gold letters spelling out the motto of the Morris



# From the Ukraine

**A**MONG the many and varied races included in New York City's conglomerate population, the representatives of "small and subject" peoples of Europe form no inconsiderable proportion. Immigration and other statistics have made us familiar with many of these names—Bohemians, Poles, Lithuanians and others—but there are a few with which for various reasons we are not so well acquainted. Among these are the Ukrainians or Little Russians.

The rich and fertile district of the Ukraine lies in Russia between the Carpathians and the Volga River. Within its borders dwell 28,000,000 Ukrainians who, for more than a century have been struggling under Muscovite supremacy for recognition as an individual nation with individual language and rights. Adjoining the Russian Ukraine, the Austrian Province of Galicia contains about 4,000,000

more of these people who formerly, under the Austrian rule, enjoyed something of privilege. But with the



*Photographic Bureau of The New York Edison Company*

On East Seventh Street, Near Third Avenue, Stands The Picturesque Little Church Which Serves the Spiritual Needs of 8,000 Ukrainians

## The Edison Monthly



"The People," New York's Ukrainian Newspaper

conquest of Galicia by Russia during the Great War, they came under the Russian government. With the overthrow of the Czar, however, hope of an autonomous existence has again risen in the hearts of the Ukrainian people.

Be that as it may, conditions during the last twenty or thirty years have led many of the Ukrainians, like other peoples, to emigrate to America, seeking freedom and prosperity, and they are now settled in the United States to the number of about 500,000. Of these 18,000 dwell in New York City.

Since the Ukrainians in their own land are chiefly an agricultural people, and those who have come here are largely of the peasant class, it is not surprising that in the comparatively few years they have been dwelling in our midst, they should have made themselves little felt in New York's civic life. But this slender, dark-haired race, from whom in the past

has come the greatest literature and art of Russia, is naturally intelligent and adaptable even in the midst of this strange environment; the younger generation is eagerly taking advantage of all the educational opportunities offered to them; and in the humble fields of labor in which the people have generally been able to engage, their character and application promise well for a permanent place of respect and honor in the city's industrial life.

As nearly as national groups may be said to congregate in one particular section of the city, the Ukrainians are largely confined to the district below Twenty-third street and east of Third avenue. But they are also found farther uptown in considerable numbers, on the West Side in the Thirties and again on the East Side between Sixtieth and One Hundredth streets. There are comparatively few with wealth enough to maintain their own business establishments; these are principally carpenters and tailors who are not at all behind other nationalities in the use of up-to-date methods in their work. The majority of the Ukrainians, however, occupy humbler positions, some employed in large factories, many as servants in large hotels and in private homes.

About two years ago there was established in the interest of the Ukrainian people all over the country as well as in this city, the Ukrainian Federation of the United States. At 108 Second avenue is to be found the national headquarters of this organization. Its primary aim is to coordinate and assist the activities of the many Ukrainian organizations. It urges Ukrainians to become citizens



## The Edison Monthly

of the United States and disseminates to them information and instruction concerning American institutions and customs; it also cherishes the memory of far away Ukraine and endeavors to interest lovers of freedom, both Ukrainian and others, in the future of this people in their native land. Mass meetings in Cooper Union or Arlington Hall and the publication of pamphlets and a weekly newspaper, called "Narod," or "The People," are part of its program here.

Printing in Ukrainian, as well as most other European languages, is done in the shop of D Popovich at 384 Second avenue, special type being of course required for the peculiar Ukrainian letters. This shop has complete electrical equipment, including a five horsepower motor to run a press and various smaller motors for the other machines, all supplied with current from Edison mains. Here is printed among other Ukrainian literature, a humorous Ukrainian monthly, "Iskra," or "The Spark," to which people from all walks of life are contributors. This magazine, by the way, has its origin on East Seventh street, where its editor also conducts a Ukrainian "Bazaar" and sells Ukrainian literature, both in the original and in translation.

On East Seventh street near Third avenue is to be found a Ukrainian church with a membership of 8,000 people. The Ruthenian Church of St. George—Ruthenian is the name which is applied to the Ukrainians in Galicia and which distinguishes their church from the Russian Orthodox Church—is a simple but artistic building in Russian style, painted green and white. Its cupolas are surmounted by

crosses, and the broad porch roof supported by two huge round pillars. The people are very proud of this little church, whose interior walls, after the manner of all Russian churches, are adorned with mural paintings above the line of the gallery. Furnishings and appointments have a foreign quaintness, though modern lighting and fixtures here, as well as in a large assembly room downstairs, show that the New World has been permitted to offer a valuable contribution to worship.

Directly back of the church, on East Sixth street, societies forming the Ukrainian National Alliance have lately remodeled two buildings into a large clubhouse. Members of the three chief Ukrainian fraternal orders, the Ruthenian National Union, the Ukrainian National Association and the Knights of Ukraine—all have rooms here devoted to their use. Gymnasium facilities, a billiard room, library and other features will make it a social and recreation center for the people.

### Luna-See

The man-in-the-moon looked around  
and about,  
And perplexedly scratched his bald  
pate;

"I'm sure I'm just one,  
But when Daylight is done,  
Moons sure seem to multiply."

Said a wise little star,  
"It's quite plain that you are  
An antique, fit for poor navigators,  
But your light's a mere bluff,  
So folks found some stuff,  
And now they have moon imitators."

*Hale McBride*



## Atlantic City by Electric

**R**OLLING into New York early in the afternoon of June 19th, an electric pleasure car carrying two passengers completed a cross country run that seems destined to mark an epoch in electric vehicle history. The machine had made the 249-mile trip from New York to Atlantic City and return, and the return trip was accomplished in less than six hours running time. While the run in no sense compares with the long distance capacity of the gasoline automobile, it does prove that the electric, in addition to its ideal qualifications for town use, is also capable

of fairly long runs at a good rate of speed. The trip covered two days, the journey down on June 18th being for observation of road conditions, while the return the next day was to try out the capacity and speed of the vehicle.

The run to the Jersey seashore resort was made at third and fourth speeds. This resulted in an average of sixteen miles per hour for the distance. It was on the return to New York that the electric, as it sped along, dispelled the old theory about the limitations of the storage battery vehicle and showed that it is entirely suitable



The Luncheon Stop at Lakewood Afforded an Opportunity for a Battery Boost. Including this Stop the Time for the Run was 7 Hours 27 Minutes



## The Edison Monthly

both for town use and for fairly long runs in the country. The start was made from Atlantic City Tuesday morning, June 19th. Control was kept at the fifth and sixth speeds for the entire distance of 123½ miles. The actual running time was five hours and fifty-seven minutes, the car averaging twenty and a half miles per hour, while at times a speed from twenty-seven to twenty-eight miles per hour was made on level stretches.

Two hundred and eighty ampere hours were consumed on the run or 2.29 ampere hours per mile. At a charging rate of five cents per kilowatt hour, the maximum New York City rate, the current would cost \$1.55, or less than one-half the price that fuel for a gasoline car would cost to carry it over the same route. To the actual running time of a little less than six hours must be added an hour and a half spent at Lakewood for luncheon and for battery boosting.

The car used for this run was a Baker, R & L stock car, model BX 7, embodying new features in electric vehicle design. Being low hung it offered less resistance to the wind and supplied an abundance of space for the batteries. Mr Edward Smith of the Baker, R & L Company, occupied the driver's seat when the car left New York on Monday morning, June 18th. Mr Waldo W Sellew accompanied him as official observer for the New York Electric Vehicle Association, under whose auspices the run was held. Mr Sellew compiled all the details and registered the incidents of the trip.

Not only does this test prove the speed and endurance of the electric, but it also justifies the claim that it is

an economically operated car. As a result of this demonstration the Electric Vehicle Association authorities feel that the electric is equal to any reasonable run and that more and more the motoring public will come to appreciate its merits and realize the error of the tradition that the electric is a short-trip car only.

### Tunis Tile Shop

ELECTRICITY lights on many a strange subject and curious corner. A modern shop devoted to the sale of Tunis tile work is oddity with emphasis.

The establishment is discovered on 37th street a few doors west of Fifth avenue. An Oriental lighting effect calls attention to a window of the brightly colored tiles. On stepping inside one learns that the tiles represent the work of a single family of Tunis which has specialized in the art for generations. Such, indeed, is the nature of the work that a secret or two of extraordinary mystery is involved.

This venerable household is said to bake the tile cakes in the sun in the ordinary way. In fact whole acres outside the ancient city are given over to the sun baking of this family industry. The cakes are next glazed and the pigment deposited *on top of* the glazing. Just why this is done no body knows, though every one, not only in Tunis where they know a thing or two about tile effects, but in New York where they are beginning to learn, concedes that the results are extraordinary. A final baking in domed ovens with vine twigs for fuel completes the process.



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**The Shop Exhibits the many Forms of these Tiles as Panels, Borders, Vases, Urns and Fancy Objects**

The patterns are produced as a usual thing on a white ground and suggest in quaintness and intricacy the decorative work on the panels of the Alhambra. How far back these in turn revert no one can say. Quite possibly these curious scrolls and flower patterns of Tunis may have been all the rage in Carthage in its palmiest days. At any rate, picturesque they are and it is with no ordinary interest that landscape architects are investigating the tiles brought from that distant country.

One is assured by the enterprising woman responsible for their New York introduction that they are used in a native way not alone for fountains, facades, pergolas, flower boxes, and so forth, but for interior effects in lieu of pictures. In truth these tiles are imported not by the piece or the square foot but by the panel. In this form their distinctive and distinctly durable beauty appeals to the designer of formal gardens and allied work as a novelty of great promise. Many of

these panels and their accompanying borders and corner pieces have already found their way into a large number of estates both here in the North and as far south as Palm Beach.

One is interested further in a display of vases and jugs of the same material on which similar patterns though of reduced proportions have been imposed and fired. Not a few of these vases have already been transformed into table lamps. The

light of electricity falling over the glazed surfaces and bright colors of these vases contributes a note of intimate brilliance approaching the intense natural lighting for which they were intended. Silk shades of appropriate hue complete a lamp of rarity. There may be more exotic corners under the rays of modern lighting. There certainly can be none of more satisfying strangeness.

### Electrics in the United States

New York City is the largest user of electric commercial vehicles, having 2800 according to statistics prepared by W P Kennedy of the National Electric Light Association in March, 1917. Other cities are as follows,—Chicago 1050; Philadelphia 510; Boston 314; Newark, N J and public service territory, 331; Washington, D C 250; Baltimore, Md 140; Detroit 175; St Louis, Mo 116. Mr Kennedy estimates the total value of electric trucks in the United States at the end of 1916 as \$36,000,000.



# Spring Repair Service

**S**ERVICE has become a modern business word of the utmost importance. Linked with efficiency it has been adopted as the doctrine of numerous business establishments. Today service in some instances is advertised even above superiority of product. An example of this is found in the Perfection Spring Company. Here, in spite of the fact that the automobile spring this company manufactures stands with the best on the market, the salesmen of this particular firm hasten the assurance that it is the service the company accords its customers that they are really selling.

This firm maintains a big machine shop or service station in Fifty-sixth street, just beyond Eleventh avenue, and here time-saving has been developed to a very high point. The Perfection Spring, in which the firm deals entirely, is the product of a Cleveland manufacturer. The springs have been and are still used extensively in New York, and because of the increasing number of users in the Metropolis the officials in Cleveland conceived the idea of not only selling but installing these springs for their New York patrons. Hence the establishment of the service station. But it soon became apparent that the service rendered was as important as the quality of the spring, and

it was not long before the salesmen began to deal in service primarily, making the sale of the springs secondary.

The Fifty-seventh street station is equipped with everything to make quick service possible. On either side of the main passage way have been constructed pits resembling the repair pits maintained in car shops. These are large enough to accommodate twenty or more machines at once, and as soon as an automobile with a disabled spring enters the shop it is moved onto a pair of the steel girders that form the tracks over the pit. Movable block and tackle outfits are adjusted immediately and the weight of the body is lifted from the damaged part. Then workmen descend into the pit and with speed developed from much practice quickly remove the injured member.

In another room of the establish-



To Be Absolutely Certain of Unvarying Heat, Draw Furnaces are Controlled by an Electric Thermostatic Regulating System



## The Edison Monthly



In the Perfection Spring Establishment, Rolling Mills, Steel Cutters and Trimmers, Punching Machines and Testing Apparatus are Operated by Motors on Central Station Service

ment several thousand standard springs are stored, each tagged and labeled and classified so that a workman can enter the room and immediately lay hands upon a spring to duplicate the one that has been disabled. This is taken from the stock, carried to the repair pit and installed, and in a matter of minutes the car is ready for active service again.

But frequently a single leaf is damaged and all that is needed is a new section to make the spring serviceable. Or again it may happen that the spring in question is not of a certain standard and is not duplicated in the extensive stock in the store-room. It is then that the service of the establishment is tested to its utmost and it is then, too, that electricity is called upon to make satisfactory service possible.

In the rear of the building is maintained a machine shop with draw furnaces, rolling mills, steel cutters, trimmers, steel punchers and other machinery that is necessary in spring manufacture, and it is here that a

new spring or section of spring is manufactured when the damaged part cannot be duplicated.

Tons upon tons of raw stock, chrome silico manganese steel which is supposed to be a superior quality metal, are stored in a room adjoining the machine shop. These bars are all rolled to prescribed widths and thicknesses and it requires but a moment to select the proper steel with which to build or repair a dam-

aged spring. The metal selected, it is taken into the foundry room and there, by means of electrically operated steel blades, cut into sections of the necessary length. The process of spring making is then under way and the metal passes swiftly from one electrically-driven machine to another, being trimmed here, shaped there, and this and that done to it according to the latest ideas in spring efficiency. And in a comparatively short time the new spring or section of spring is ready to be put onto the electrically operated testing machine, preparatory to being installed into the car that is still waiting over the repair pit.

At one stage in the manufacture of springs from raw stock, the sections of steel must be tempered in draw furnaces, and two of these are maintained in the shop, each of which is operated by an electrical control system. Methods of tempering steel are many and diverse, but to secure perfect metal it is absolutely necessary that it must be submitted to a certain



## The Edison Monthly

unvarying degree of heat which can only be obtained by means of a proper heat control system. The spring steel is put into the furnaces when the heat reaches 900 degrees Fahrenheit, and is allowed to remain there a certain length of time. It is then withdrawn quickly and plunged into a bath of oil, and by this process it is tempered to the state of highest efficiency.

### The Prizma Film

WHEN the Museum of Natural History sends out invitations for an exhibit of something new in the scientific line one can be sure of a display worth while. Such an exhibit recently featured the latest development in color moving pictures.

These films, called the Prizma Pictures, gave reproductions of surprising realism, showing a variety of subjects both in motion and at rest. The pictures are taken on a panchromatic film and evolve the application of the scientific principles of light and optics. While the unaided eye sees in the film itself only the black and white of the ordinary film, there are nevertheless color values here that are reproduced upon the screen by special color attachments applicable to standard projecting machines.

The camera in taking the Prizma Pictures controls a single strip of film of the usual width and perforated in the ordinary way. This film is pulled down step by step back of a single lens. Two shutters are made use of between the film and the lens. One is intended to cover the film during the period in which it is in



This Pit Affords Easy Access to the Springs and Axles

motion. The other carries the color filters through which the light rays must pass before reaching the film.

The positives are printed as usual. When completed the film, though in the monochrome already mentioned, carries latent color values. A color wheel composed of colors similar to those used in taking is geared to the projector in such a way as to serve red, green, blue and yellow records. The effect to the eye due to persistence of vision is that of a picture showing all the colors and intermediate tints of the object photographed.

The Museum exhibit, the first public showing of the new process, revealed a delicacy of detail and a remarkable degree of depth and relief. A profusion of scenes ranging in color requirements from the blazing lights of the deserts of Arizona and New Mexico to the soft and mellow values of the Rainier National Park and other northern landscapes gave the new films ample opportunity to prove their worth. In fact electricity seemed to have found in this novel apparatus a medium of thus far unsurpassed excellence in reproducing the great outdoors of light and color.

# On the Scrap Heap

**I**N Civil War days, the big smooth bore howitzers of the Union and Confederate armies were rammed to the muzzle with railroad spikes, small sections of steel rails, links of chain, and other scraps of iron. When the gunner pulled the landyards this "junk" accounted for considerable of the enemy. Today, the field pieces of the European armies hurl a hissing projectile miles over the hills and drop it into the trenches of the opposing host where it bursts, scattering its

missils among the defending force.

But though different in guise the shrapnel that the cannon hurls is the same today as it was fifty years ago. The finely turned and highly polished projectile of the "seventy-five" is the same scrap iron that composed the cannon load of former days, the difference being that time and money are now being spent to make this "junk" efficient. In other words scrap iron, moulded and welded into a new form, becomes the shrapnel of today.

However, all scrap iron does not find its way to the munition factory. A great deal of it becomes tools, bridge or building girders, hull plates for steam ships and whatever else that steel is made into, for the use of scrap in the making of steel is now one of the important branches of the metal industry. This is conservation as practiced by the steel makers and it is conservation in the most practical form for not only does it reduce the drain upon the physical resources of the country, but it re-



*Photographic Bureau of The New York Edison Company*

**Electrically Operated Derricks are Indispensable in Scrap Yards**



## The Edison Monthly

duces the waste in manufacturing and thereby conserves financial resources as well.

New York, like almost every other city, has its host of "junk" gatherers. Here and there about Manhattan are to be found what appear to be vacant lots, usually fenced about by high board barriers and littered with piles of what at first glance look like worthless rusted iron.

Over on the edge of the East River, under the shadow of the Williamsburg Bridge, is one of these lots. It is the point of accumulation of a great deal of New York's scrap. The contents of this lot represent the accumulation of a single firm of scrap dealers, John J. Kelleher, Inc., one of the oldest and largest firms of the old metal dealers in the city.

The Kelleher Company, like other companies in the same field, secures

its scrap in the open market by sagacious bargaining. The street railroads and the various subway and elevated systems in New York and Brooklyn supply most of the scrap iron in the old rails, car wheels, girders and the like. The ship yards are next in importance, supplying steel hull plates, rusted stern posts, old propellers, boilers and similar waste.

The troubles of the scrap gatherer are only just begun when he has closed the deal. The old iron comes in many forms. Big cast iron propellers and steel ship plates may be included in a pile of discarded boiler tubes or old smoke-stacks. To make this heterogeneous mass saleable and useable in steel mills, it must be sorted and cut or broken into sections that will conveniently fit into the furnaces or "charging boxes" of the steel mills. And it is here that electricity enters



*Photographic Bureau of The New York Edison Company*

In the Process of "Scraping" this Pair of Motor Driven Shears Does a Huge Quantity of Work. This Machine will Cut a Four-inch Bar of Cold Steel



## The Edison Monthly



**The Power Behind the Derrick. A 45 Horsepower Motor Meets all Emergencies Here**

into the work of the scrap dealer.

There are two ways of breaking or cutting scrap to the required sizes. In the case of steel plates and similar material an oxy-acetylene blow torch outfit is used. In the case of castings the old method of breaking with a huge iron ball is still in vogue.

In the Kelleher yards the casting is placed in a convenient position near an electrically operated derrick. The breaking ball, which ranges anywhere from five thousand pounds to six tons in weight, depending upon the work to be done, is brought forth and hooked by means of a tripping device to the derrick cable. Then at a signal the motor is started and the big ball is raised high in the air. A rope attached to the tripping device and a second attached to the ball trail down to the ground, and these are handled by the man who is in charge of the work. With the second rope he begins to swing the heavy ball back and forth like a pendulum. When a cer-

tain arc is reached which will throw the weight on the casting below, he pulls the tripping rope and the big weight drops with a tremendous crash and smashes the casting in a hundred pieces. This work is usually done in the Winter time when frost makes the metals more brittle.

Protective shelters, or batteries, are placed about the yard, and before the ball is tripped a signal is sounded warning all workmen to take to the cover of these until the ball falls.

There is still a third way in which scrap is cut in the Kelleher yards, and in this too, electricity plays a part. This is by means of huge electrically operated shears. In its powerful steel jaws boiler tubes, piping, and sections of steel plates and casting are cut into small pieces. These shears are very strong, the largest of them being able to cut a four-inch square bar of cold steel at a single stroke. Motors used to operate them range from twenty to thirty horsepower.

As already pointed out, electrically operated derricks are used in the Kelleher scrap yards. These are usually of the stiff-legged variety and have a lifting capacity ranging up to ten tons. Forty-five horsepower motors are often required to operate these derricks. In one or two places electro-magnets are used for hoisting purposes. These big magnets are merely lowered into a pile of "junk" and the current turned on. The pieces of scrap leap to its surface and cling there while the cable raises the entire load and shifts it to the point required. When the current is turned off the magnet lets go its grip, depositing the load of scrap in the proper place.



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Motors

#### General Uses

Allis-Chalmers Co—50 Church St  
Bogue Electric Co C J—513-15 W 29th St  
Boker H & Co Inc—101-103 Duane St  
Bell Electric Motor Co—30 Church St  
Burke Elec Co—30 Church St  
C & C Electric & Mfg Co—90 West St  
Century Electric Co—30 Church St  
Colonial Fan & Motor Co—150 Chambers St  
Crocker-Wheeler Co—30 Church St  
Diehl Mfg Co—149 Broadway  
Eck Dynamo & Motor Co—46 W Broadway  
Electro-Dynamic Co The—Ave A Bayonne N J  
Emerson Elec Mfg Co The—50 Church St  
General Electric Co—120 Broadway  
Holtzer-Cabot Electric Co—83 Warren St  
Imperial Elec Co (Watson)—253 Broadway  
Lincoln Electric Co—149 Broadway  
Mechanical Appliance Co—154 Nassau St  
Northwestern Mfg Co—243 Canal St  
Peerless Elec Co—147-9 W 35th St  
Reliance Electric & Engineering Co—90 West St  
Robbins & Myers Co The—30 Church St  
Sprague Electric Works—527 West 34th St  
Triumph Electric Co—114 Liberty St  
Wagner Electric Mfg Co—30 Church St  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

#### Inspection—Maintenance—Repairs

Blackall & Baldwin Co—39 Cortlandt St  
Bogart Co A L—55 Barclay St  
Borne Chas A Co Inc—35-37 Wooster St  
Comstock Associate Co—101 Park Ave  
Conlan Electric Co—43 Murray St  
Elec Machine Tool Co—50 Church St  
Elec Motor Insp & Rep Co—1 Beekman St  
Elec Repair Co—548-550 W 23d St  
General Electric Inspection Co—237 Fulton St  
Globe Elec Cont & Rep Co The—434 Broome St  
Graham Bros Co—585 Hudson St  
Hammill John—55 Ann St  
Harlem Electric Co—6 E 116th St  
Jordon Bros Inc—74 Beekman St  
Kelting Electric Co—119 Pearl St  
Leve Robert E—19 E 32d St  
Maintenance Co The—417 Canal St  
National Electric Co—89 Centre St  
Naumer Elec Co—96 Beekman St  
Naylor & Newton—243 Canal St  
Russell & Co—56 W 45th St  
See Van Dyck C—39 Cortlandt St  
Weiderman Geo Elec Co—35-37 Rose St  
Westinghouse Elec & Mfg Co (Repair Shop)—  
467 10th Ave cor 36th St

#### Starters and Controllers

Allen-Bradley Co—50 Church St  
Automatic Switch Co—4 White St  
Curtis-Carhart Co Inc—150 Chambers St  
Cutler-Hammer Mfg Co The—50 Church St  
Electric Controller & Mfg Co The—50 Church St  
General Electric Co—120 Broadway  
Industrial Controller Co—50 Church St  
Rowan Electric Mfg Co—39 Cortlandt St  
Ward Leonard Electric Co—Mount Vernon N Y  
Westinghouse Elec & Mfg Co—165 Broadway

#### Used Motors

Archer & Baldwin—114-118 Liberty St  
Cutter Co F B—50 Church St  
Duzets & Son—546 W 45th St  
Graham Jas A—30 Church St  
Holcomb & Co D S Inc—241-3 Canal St

Klein & Co—208 Centre St  
Oneida Elect Co—313 Canal St

### Office Accessories

Edison Dictating Machine—Orange N J 114  
Liberty St N Y C  
Ensign Elec Calculating Machine—280 B'way  
"The Dictaphone"—83 Chambers St  
The Hooven, Owens, Rentschler Co—Woolworth  
Building  
"The Millionaire" Elec Cal Mach—1 Madison Ave

### Pumps

Beach-Russ Co—220 Broadway  
Blackall & Baldwin Co—39 Cortlandt St  
Boker H & Co Inc—101-103 Duane St  
D'Olier Centrifugal Pump & Machine Co—503  
Morris Building Philadelphia Pa  
Goulds Mfg Co—16 Murray St  
Holland Machine Co—90 West Broadway  
International Steam Pump Co—115 Broadway  
Lea-Courtenay Co—90 West St  
Platt Iron Works The—50 Church St  
Quimby William E Inc—548 West 23d St  
Rider Ericsson Engine Co—20 Murray St  
Rumsey Pump & Mach Co—75 Warren St  
Twinvolute Pump and Mfg Co—30 Church St  
Western Elec Co—463 West St and 105 W 40th St

### Refrigeration

Automatic Refrigerating Co—50 East 42d St  
Brunswick Refrigerating Co—30 Church St  
De La Vergne Machine Co—Foot of East 138th St  
Electrical Refrigerating Co Inc The—Woolworth  
Building  
Johns-Manville Co H W—41st St & Madison Ave  
Montclair Refrigerating Corp—Woolworth Bldg  
Shipley Const & Sup Co—Columbia St Bklyn N Y  
Triumph Ice Machine Co—30 Church St  
Voss Ice Mach Works—242-252 East 122d St

### Signs

Adams Bagnail Co—114 Liberty St  
B & B Sign Company—347 Fifth Ave  
Bilt-Well Sign System (Elec) 113-115 E 15th St  
Bofinger Bros—146 East 42d St  
Commercial Sign Co Inc—440 W 46th St  
Empire Elec Sign Co—162 East 118th St  
Federal Sign System (Electric)—649 W 43d St  
Fricker Frederick—430 11th Ave  
Frink I P—24th St and 10th Ave  
Gude Co O J—220 W 42d St  
Halpern Bros—210 West 26th St  
Manheimer Co The—162 W 34th St  
Martin P J—306 W 53d St  
Mechling Charles J—477 Willis Ave  
Mercantile Adv Co—17 Battery Pl  
Norden Electric Sign Co Inc—311 W 40th St  
Opal Sign Co—254 Tenth Ave  
Pisch Electric Sign Co Inc The—415 W 48th St  
Prismlyte Co The—8 St Felix St Brooklyn  
Snow & Co—531 W 46th St  
Rice Geo H Co Inc—481-87 Sterling Pl Bklyn  
Strauss & Co—209 W 48th St  
Strauss L L—74 W 125th St  
Universal Elec Stage Ltg Co—240 W 50th St  
Wertheimer Sign Co—558 W 36th St



# The New York Edison Directory

## Manufacturers and Agents (Concluded)

### Sign Flashers

Betts & Betts Corporation—511 W 42d St  
 Phelps Mfg Co—729-31 Broadway  
 Reynolds Elec Co—1123 Broadway

### Supply Dealers

#### Manhattan

Alpha Elec Co Inc—116-118 W 29th St  
 Bailly Elec Supply Co—62 Vesey St  
 Bohn Elec Co C C—820 6th Ave  
 Bunnell & Co J H—32 Park Pl  
 Burnet Co The—69 South St & 1800 Park Ave  
 Central Electrical Supply Co—4 West 16th St  
 Crannell, Nugent & Kranzer Inc—110 W 30th St  
 Fox Electrical Corporation—119 W 42d St  
 Fullerton Electric Co—109-115 W 26th St  
 Goetz A E—55 Barclay St  
 Hartt & Morison—780 Sixth Ave  
 Killoch Co David—57 Murray St  
 Latham & Co E B—4 Murray St  
 Leahy John J—48 Dey St  
 Leveridge Chas W Inc—133 Liberty St  
 Manhattan Electrical Supply Co—17 Park Pl  
 110 West 42d St, 127 West 125th St  
 Metropolitan Elec Products Co—101 W 42d St  
 Metropolitan Elec Supply Co—126 W 36th St  
 N W Elec Equip Co—35 Vestry St  
 Ostrander & Co W R—371 Broadway  
 Public Electrical Supply House—62 Essex St  
 Royal-Eastern Elec Sup Co—114 W 27th St  
 Sibley-Pitman—19-21 West 36th St  
 Smith J M & Son—4 E 8th St  
 Thomas & Betts Co—105 Hudson St  
 Western Elec Co—463 West St and 105 W 40th St

#### Bronx

Bronx Elec Supply Co The—612 Melrose Ave  
 Royal Eastern Supply Co The—506 Willis Ave  
 Webber Supply Co The—558 Melrose Ave

### Electro-Plating Apparatus and Supplies

Bogue Electric Co C J—513-15 W 29th St  
 Green Electric Co W—81 Nassau St  
 Munning-Loeb Co—50 Church St

### Specialties

Aladdin Lamp Corporation—52 Vanderbilt Ave  
 Bonnell & Co W A—132 Church St  
 Bromley-Mercedes Mfg Co Dishwashing Machines—1328 Broadway  
 Brown Elec Co Wm S—3 W 29th St  
 Chapin Co Chas E—201 Fulton St  
 Corliss Carbon Co—114 Liberty St  
 Cutler-Hammer Mfg Co The—50 Church St  
 DeVeau Tele Mfg Co—472 18th St Bklyn N Y  
 Electric Fountain Co The—348 W 42nd St  
 Fox Electrical Corporation—119 W 42d St  
 Frantz Premier Distrib Co Inc—119 W 42d St  
 Fulton-Bell Co—105 W 40th St  
 Guarantee Electric Products Co—47 W 42d St  
 Howe Scale Co of N Y The—341 Broadway  
 Kirkman Eng Corporation—237 Lafayette St  
 Mercantile Adv Co—17 Battery Place  
 Organ Arthur—114 Liberty St  
 Pittsburgh Electric Spec Co—412 8th Ave  
 Shelton Electric Co—30 E 42d St  
 Universal Elec Stage Light'g Co—240 W 50th St  
 Wallace Novelty Co Inc The—25 E 24th St  
 Ward Leonard Electric Co—Mount Vernon N Y  
 White J H Mfg Co—111 No 3rd St Brooklyn  
 Wicks Electric Co—Cleveland Ohio

### Switch and Distributing Boards

Anderson Mfg Co A & J M—135 Broadway  
 Automatic Switch Co—4-6 White St

Crouse Hinds Co—30 Church St  
 Empire Eng'g & Supply Co—1 Dominick St  
 General Electric Co—120 Broadway  
 Johns-Manville Co H W—Mad Ave & 41st St  
 Krantz Mfg Co—160 Seventh St Bklyn  
 Le Baron B Johnson—Madison Ave & 41st St  
 Metropolitan Elec Mfg Co—Long Island City  
 Metropolitan Engineering Co—35 Vestry St  
 Pringle Elec Mfg Co—39 Cortlandt St  
 Rall Frederick—19 Park Pl  
 Sprague Electric Works—527 W 34th St  
 Trumbull Electric Mfg Co—114 Liberty St  
 Walker Electric Co—50 Church St  
 Western Elec Co—463 West St and 105 W 40th St  
 Westinghouse Elec & Mfg Co—165 Broadway

### Vacuum Cleaners

Bohn Electric Co C C (Santo)—820 Sixth Ave  
 Comstock Associate Co (Sturtevant)—101 Park Avenue  
 Duntley Products Sales Co—295 Fifth Ave  
 Federal Sign System (Electric)—649 W 43d St  
 Fox Electric Corp (Hoover)—119 W 42d St  
 Frantz Premier Distrib Co Inc—119 W 42d St  
 Guarantee Electric Products Co—47 W 42d St  
 Hartt & Morison—780 Sixth Ave  
 Hot Point Electric Heating Co—147 Waverly Pl  
 Hurley Machine Co (Thor)—147 W 42nd St  
 Innovation Electric Co—585 Hudson St  
 Metropolitan Elec Products Co—101 W 42d St  
 Muenzen Specialty Co—131 W 42d St  
 Ohio Co The—1463 Broadway  
 Regina Co—47 West 34th St  
 Richmond Radiator Co—1480 Broadway  
 Sloane W & J (Invincible) Fifth Ave and 47th St  
 Spencer Turbine Cleaner Co—101 Park Ave  
 Tuec Company The—1457 Broadway  
 Univ Vacuum Cleaner Maint Co—47 W 38th St  
 Western Elec Co—463 West St and 105 W 40th St

### Vibrators and Hair Dryers

Barker Metal Furniture Co—255 Canal St  
 Fox Electrical Corporation—119 W 42d St  
 Guarantee Electric Products Co—47 W 42d St  
 Hartt & Morison—780 Sixth Ave  
 Jorgensen John—114 Liberty St  
 Kandem Electric Co Inc—49 E 21st St  
 Manhattan Electrical Supply Co—17 Park Place,  
 110 West 42d St, 127 West 125th St  
 Sanax Co Inc—1c The 25 E 23d St  
 Shelton Elec Co—30 E 42d St  
 Sibley-Pitman—19-21 W 36th St  
 Western Elec Co—463 West St and 105 W 40th St

### Washing Machines

Brokaw-Eden Mfg Co (The Eden)—119 W 42d St  
 Federal Sign System (Electric)—649 W 43d St  
 Fox Electric Corp (Eden)—119 W 42d St  
 Guarantee Electric Products Co—47 W 42d St  
 Hart Wallace B—(Arora) (Judd) (1900)  
 (Cataract)—46 E 41st St  
 Home Devices Corp (Modern Home Washers)  
 —Bush Terminal Brooklyn  
 Hurley Machine Co—147-157 W 42d St  
 National Sewing Machine Co—290 Broadway  
 Northwestern Electric Equipment Co (Geyser)—  
 35 Vestry St  
 Sibley-Pitman—19-21 W 36th St  
 Wemlinger Co Inc The—40 Whitehall St  
 Western Elec Co—105 W 40th St and 463 West St

### Welders

Lincoln Electric Co—145 Broadway  
 Welding Materials Co—114 Liberty St  
 Westinghouse Electric & Mfg Co—165 Broadway  
 Winfield Elec Welding Machine Co—50 Church St



# The New York Edison Directory

## Wiring and Installation Contractors

### West of Broadway and Fifth Avenue

Amsterdam Ave 868—Joseph Rice  
 Amsterdam Ave 943—P D Dunn  
 Amsterdam Ave 984—Sam A Grice & Co  
 Amsterdam Ave 1768—The Lincoln Electric & Repair Shop  
 Amsterdam Ave 1989—Manhattan Electrical Maintenance Company  
 Broadway 212—Charles S Borger  
 Broadway 335—Park Sullinger  
 Broadway 853—J Menkes  
 Broadway 1123—William J Shore  
 Broadway 1133—Van Wagoner-Linn Cons Co  
 Broadway 1170—Alliance Electric Co Inc  
 Broadway 1270—Crocker National Fire Prevention Engineering Company  
 Broadway 1402—Gagen & Butler  
 Broadway 1929—F W Astarita  
 Broadway 1931—Bull-Duroy Electric Co  
 Broadway 1960—E May Inc  
 Broadway 2304—C E MacCabe  
 Broadway 2304—Frank B Widmayer Co  
 Broadway 2382—Howard S Beidleman  
 Canal St 313—Oneida Electric Co  
 Canal St 417—G E Engineering Co  
 Canal St 417—The Maintenance Co  
 Christopher St 41—W Buch  
 Church St 30—L K Comstock & Co  
 Church St 50—William Braun  
 Columbus Ave 220—Thomas F Carr  
 Columbus Ave 348—H Blumenstetter  
 Columbus Ave 517—Samuel Millinger  
 Columbus Ave 549—Hoffman & Elias  
 Columbus Ave 847—Mariposa Electric Co  
 Cortlandt St 26—Cleveland & Ryan  
 Cortlandt St 39—Blackall & Baldwin Co  
 Cortlandt St 84—Bleyele Elec Co  
 Duane St 172—Jas F Hughes Co  
 Eighth Ave 461—A J Buschmann Co  
 Eighth Ave 461—Edward B Stott & Co  
 Eighth Ave 766—H Lauer & Co  
 Fifth Ave 75—H M Walter  
 Fifth Ave 320—J P Hall-Smith Co  
 Fifth Ave 503—Alfred U Keedwell & Co  
 Fulton St 237—General Electric Inspection Co  
 Greenwich St 183—Thomas & Johnson  
 Greenwich St 255—Garret M Ross  
 Hudson St 585—S Edw Eaton & Co  
 Liberty St 120—S Arthur Brown & Co  
 Liberty St 120—Watson-Flagg Engineering Co  
 St Nicholas Ave 1048—George E Ryan Co Inc  
 Sixth Ave 440—A Goldman & Co Inc  
 Sixth Ave 617—Zenker & Siems  
 Sixth Ave 632—John J Finn  
 Sixth Ave 819—Thomas Hindley & Son  
 Sixth Ave 820—C C Bohn Electric Co  
 Sixth Ave 882—P McGunnigle & Son  
 Sixth Ave 906—R A Schoenberg & Co  
 Sixth Ave 1009—John T Whitehead & Son  
 Seventh Ave 360—Louis Freund  
 Seventh Ave 422—Franklin Elec Co  
 Seventh Ave 2286—Nathan Zolinsky

Tenth Ave 466—George E Valley & Bros  
 Tenth Ave 578—Chas F Dunker  
 Thames St 27—McLeod Ward & Co  
 Varick St 143-145—H C Griffin & Co Inc  
 Vesey St 53—F A Frey  
 West Broadway 170—J S Bihin  
 West Broadway 490—X L Machine & Elec Co  
 West End Ave 165—F W Astarita  
 West St 116—Knickerbocker Electric Co  
 West 12th St 101—C S Harris  
 West 14th St 249—Kenehan & Clancy  
 West 17th St 108—Manhattan Elec Cont Co  
 West 17th St 142—Harry A Hanft  
 West 26th St 101—Pruver Electric Co  
 West 30th St 114—Tucker Elec Construction Co  
 West 31st St 109—Jandous Elec Equip Co Inc  
 West 33d St 221—E-J Elec Installation Co  
 West 34th St 20—Harry Alexander Inc  
 West 34th St 110—Nimis & Nimis Inc  
 West 35th St 147-49—N Y Elec Installation Co  
 West 39th St 42—J Fischer Electric Co  
 West 40th St 105—Lord Electric Co  
 West 40th St 337—William W Ritchie  
 West 40th St 447—Manhattan Engineering Co  
 West 40th St 458—George L Ford  
 West 42d St 25—William D Munro  
 West 42d St 112—Oberg Blumberg & Bleyer  
 West 42d St 121—Conduit Wiring Co  
 West 42d St 229—M Schweiger & Co Inc  
 West 42d St 314—A & A Electric Co  
 West 45th St 56—Russell & Co  
 West 45th St 100—Robert Bernecker  
 West 48th St 209-13—Strauss & Company Inc  
 West 53d St 207—Wm A Brown  
 West 53d St 243—W E Nichols  
 West 59th St 401—John T Williams Co  
 West 72d St 176—Kaufman & Burkert  
 West 83d St 121—C A Christesen  
 West 99th St 146—John A Marcato Co  
 West 100th St 204—L Koehler  
 West 116th St 138—P Simpson  
 West 116th St 227—Lewis S Davis  
 West 125th St 71-75—H Kaufman  
 West 125th St 74—Lawrence L Strauss  
 West 125th St 215—M J Heller Elect Co  
 West 125th St 247—Planet Elec & Sup Co  
 Wooster St 12—Durbrow & Hearne Mfg Co

### East of Broadway and Fifth Avenue

Beckman St 74—Jordan Bros Const Co  
 Bible House 78—Thos C Miller  
 Beaver St 42—Hanover Elect Co  
 Broome St 114—B H Weinberg  
 Broome St 434—The Globe Electric Contracting & Repairing Company  
 Cedar St 16—Wm Truswell & Son  
 Chrystie St 155—A Fox  
 Dover St 8—Hazazer Electric Co Inc  
 East Houston St 93—I Berkowitz  
 East 3d St 48—B Ackerman Co  
 East 3d St 136—H A Schreiber  
 East 5th St 416—Frank B'oom  
 East 8th St 4—J M Smith & Son  
 East 8th St 48—American Pressing Iron Co  
 East 13th St 2—B W Sandbach & Co

# The New York Edison Directory

## Department Stores which Sell Electric Appliances

Adams-Flanigan Co—Westchester & Third Aves  
Bronx Basement  
Barnett Bros—Columbus Ave & 74th St  
Basement  
\*Bloomingdale Bros—59th St & Third Ave  
Basement  
John Daniell Sons—759 Broadway Basement  
\*Gimbel Bros—6th Ave & 33d St Fifth Floor  
\*J B Greenhut & Co—6th Ave & 18th St  
Basement  
H C F Koch & Co—132 W 125th St Basement  
Lewis & Conger—Sixth Ave & 45th St First Floor

Liggett-Riker-Hegeman Drug Stores  
\*Lord & Taylor—5th Ave & 38th St Fifth Floor  
\*James McCreery—5 W 34th St Sixth Floor  
\*R H Macy & Co—Broadway & 35th St  
Basement  
Rothenberg & Co—34 W 14th St Basement  
Stern Bros—41 W 42d St Fourth Floor  
\*John Wanamaker—Broadway & 10th St  
Seventh Floor

\*These stores maintain special electrical departments where wide varieties of electric household appliances are always displayed.

## Manufacturers and Agents

### Arc Lamps

Adams Bagnall Co—114 Liberty St  
Bogue Electric Co C J—513-15 W 29th St  
Cooper-Hewitt Elec Co—730 Grand Street  
Hoboken N J  
General Electric Co—120 Broadway  
General Illuminating Co—369 Broadway  
Hallberg J H—38 E 23d St  
Kandem Electric Co Inc—49 E 21st St  
Stave Electrical Co—131 Hudson St  
Western Elec Co—463 West St and 105 West  
40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wohl M J & Co—211 Fulton St Brooklyn N Y

### Mercury Vapor Lamps

Cooper-Hewitt Elec Co—730 Grand Street Ho-  
boken N J  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

### Automobiles

C—Commercial I—Industrial P—Passenger  
Anderson Electric Car Co of N Y (Detroit Elec-  
tric)—Central Park West at 62d St (C & P)  
Atlantic Elec Vehicle Co—52 Vanderbilt Ave (C)  
Automatic Transportation Co—258 B'way (I)  
Baker R & L New York Corporation The—  
Central Park West at 62d St (P)  
Buda Co of Chicago—30 Church St (I)  
Comm'l Truck Co of America—30 E 42d St (C)  
Couple Gear Co—(Clarence L Smith Co Agents)  
—544 W 30th St (C)  
Cowan Truck Co—114 Liberty St (I)  
Electric Automobile Sales Corp—Times Bldg (C)  
Electro Coach Corp—30 Church St (Busses)  
Elwell-Parker Electric Co (Lucian C & G W  
Brown Agts)—50 Church St (I)  
Field Omnibus Co—149 Broadway (Busses)  
General Vehicle Co—30 East 42d St (C) (I)  
Healey & Co—Broadway and 51st St (P)  
Hoagland-Thayer Inc—383 Halsey Street  
Newark N J (I)  
Hunt Co C W Inc—61 Broadway (I)  
Lansden Co Inc The—Flatbush & Nostrand  
Aves Brooklyn (C)  
Lansing Co—288-9 West St (I)  
Mercury Mfg Co—(Truck & Tractor Co Agents)  
25 Church St  
Ohio Electric Car Co (Robt W Schuette Agent)  
—236 West 54th St (P)  
Orenstein-Arthur Koppel Co—30 Church St (I)  
Walker Vehicle Co—Grand Central Terminal  
Room 3709 (C)  
Ward Motor Vehicle Co—Mt Vernon N Y (C)

### Charging Apparatus

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—Belleville N J

Electric Products Co The—30 E 42d St  
General Electric Co—120 Broadway  
Industrial Controller Co—50 Church St  
Lincoln Electric Co—149 Broadway  
Northwestern Electric Co The—1457-63 B'way  
Wagner Electric Mfg Co—30 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Elec & Mfg Co—165 Broadway

### Charging Apparatus for Ignition, Starting and Lighting Batteries

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—Belleville N J  
Edison Thomas A Inc—141 Lakeside Ave  
Orange N J  
Electric Products Co—30 E 42d St  
General Electric Co—120 Broadway  
Lincoln Electric Co—149 Broadway  
Robbins & Myers Co—30 Church St  
Wagner Electric Mfg Co—50 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Electric & Manufacturing Co—  
165 Broadway

### Electric Garages

Acker Merrill & Condit Co—523 W 46th St (C)  
Exide Battery Depots Inc  
East Side Garage—141 E 25th St (C)  
North Side Garage—West End Ave & 64th St (C)  
West Side Garage 527-41 W 23d St (C)  
International Motor Co—West End Ave & 63d  
St (C)  
No Moore St Garage—56-62 No Moore St (C)  
Piercy Contracting Co—422 W 15th St (C)  
Proud Elec Co T I—114 W 54th St (P)  
The Electric Garage—Central Park West & 62d  
St (P)  
The 474 West 130th Street Garage Inc—474 W  
130th St (C)  
Wright's Garage Inc—600 W 158th St (P)

### Mechanical and Battery Parts

Anderson Electric Car Co—Central Park West  
at 62d St  
Anderson Mfg Co Albert & J M—135 Broadway  
Baker R & L New York Corporation The—  
Central Park West at 62d St  
Edison Storage Battery Co—204-206 W 76th St  
Electric Garage—Central Park West & 62d St  
Electric Storage Battery Co The—100 B'way  
Exide Battery Depots Inc—West End Ave and  
64th St  
Gassaway F S Inc—212 E 54th St  
General Lead Batteries Co—1790 Broadway  
Gould Storage Battery Co The—39 E 42 St  
Guarantee Electric Products Co—47 W 42d St  
Phila Storage Battery Co—American Building  
Broadway and 58th St  
Storage Battery Supply Co—239 East 27th St



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Mechanical and Battery Parts (Concluded)

Walker Vehicle Co—531 W 46th St  
Willard Storage Bat Co The—228-30 W 58th St

### Buffers—Polishers

Bogue Electric Co C J—513-15 W 29th St  
Fort Wayne Electric Works of the General Electric Co—30 Church St  
General Electric Co—120 Broadway  
Green Electric Co The W—81 Nassau St  
Holtzer-Cabot Electric Co—83 Warren St  
Munning-Loeb Co—Canal & Sullivan Streets  
Robbins & Myers Co The—30 Church St  
Westinghouse Elec & Mfg Co—165 Broadway

### Clocks—Time Stamps and Recorders

Betts & Betts Corporation—511-13 W 42d St  
Holtzer-Cabot Electric Co—83 Warren St  
Howard Electric Clock Co—Maiden Lane & William St  
Walker Bros & Haviland—50 Church St

### Coffee Mills

Boker H & Co Inc—101-103 Duane St  
Canton Electric Cut Co—11 E 125th St  
Coles Mfg Co—419 Long Beach Bldg  
Deer Co A J—55 West 63d St  
Hobart Mfg Co Inc The—24 East 21st St  
Howe Scale Co of N Y The—341 Broadway  
Jacobs Bros Co Inc—78 Warren St

### Drills and Grinders (Portable)

Chicago Pneumatic Tool Co—52 Vanderbilt Ave  
Cincinnati Electrical Tool Co—50 Church St  
Electro-Magnetic Tool Co—426 Broome St  
Hisey Wolf Machine Co—50 Church St  
Standard Electric Tool Co—30 Church St  
United States Electrical Co—50 Church St  
Van Dorn Electrical Tool Co—30 Church St

### Electro-Therapeutic and Dental Apparatus

American Sterilizer Co—Erie Pa  
American X-Ray Equip Co—401-405 E 31st St  
Edmonds Walter S—134 Congress St Boston Mass  
General Acoustic Co—Acousticon for the Deaf 220 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hanovia Chemical & Mfg Co—30 Church St  
Harper Oriphone Co (Instruments for the Deaf) —303-305 Fifth Avenue  
Hospital Supply Co The—53-55 Fifth Avenue  
Hotpoint Elec Heating Co—147 Waverly Pl  
Hughes Co The J W—110 E 23d St  
Johns-Manville Co H W—41st St & Madison Ave  
Kny-Scheerer Co The—404-410 West 27th St  
MacAlaster Wiggins Co—66 Broadway Cambridge Mass  
Meyrowitz E B Inc—237 Fifth Ave  
Metropolitan Eng Co—35 Vestry St  
Neel-Armstrong Co—29 W 34th St  
Pelton & Crane Co—Detroit Michigan  
Pittsburgh Electric Specialties Co—412 Eighth Ave (lamps only)  
Prometheus Elec Co The—232 E 43d St  
Ritter Dental Mfg Co—Fifth Ave Building  
Sanax Co Inc The—125 E 23d St

Shelton Elec Co—30 W 42d St  
Simplex Electric Heating Co—120 W 32d St  
Sorensen C N Co Inc—177 E 87th St  
Tiemann Co George—107 E 28th St 107 Park Row  
Trenaman Dental Mfg Co—107 W 25th St  
Victor Electric Co—110 E 23d St  
Vioray Mfg Co—915 Whitlock Ave Bronx  
Waite & Bartlett Mfg Co—252-258 W 29th St  
Wappler Elec Mfg Co Inc—173 E 87th St  
Westinghouse Electric & Mfg Co—165 B'way  
White Dental Mfg Co S S—5 Union Square  
Williams Roger—120 W 32d St  
Wolff Co Wm F—501 W 145th St

### Elevators—Dumbwaiters

American Elevator Co—117 Cedar St  
Burdett-Rowntree Mfg Co—119 W 40th St  
Burwak Elevator Co—216 Fulton St  
Dowdall Chas E Inc—152 W Broadway  
General Elevator Co—29 Broadway  
Gurney Elevator Co—62-64 W 45th St  
Jordon Bros Inc—74 Beekman St  
Maintenance Co The—417-421 Canal St  
National Elevator Co—62-64 W 45th St  
New York Elevator Co—50 Grand St  
Otis Elevator Co—11th Ave and 26th St  
Reedy Elevator Co—202 Ninth Ave  
Roberts Elevator Co Jas H—430 W Broadway  
Sedgwick Machine Works—128 Liberty St  
See Elec Elevator Co A B—220 Broadway  
Warner Elev Mfg Co—113 Warren St  
Warsaw Elevator Co—216 Fulton St  
Wheeler McDowell Elev Co—417 Canal St

### Fans, Blowers and Air Compressors

Adams Bagnall Co—114 Liberty St  
Allis-Chalmers Co—50 Church St  
American Blower Co—141 Broadway  
Beach-Russ Co—220 Broadway  
Boker H & Co Inc—101-103 Duane St  
Brunner Mfg Co—30 Church St  
Century Electric Co—30 Church St  
Clayton Air Compressor Works—115 Broadway  
Curtis & Carhart Inc—150 Chambers St  
Curtis Pneumatic Machinery Co—30 Church St  
Diehl Mfg Co—149 Broadway  
Eck Dynamo & Motor Co—46 W Broadway  
Federal Sign System (Electric)—649 W 43d St  
Fox Electrical Corporation—119 W 42d St  
Garner Ventilating Co—136 Liberty St  
General Electric Co—120 Broadway  
Gerdes Theo R N—123 Liberty St  
Hunter Fan & Motor Co—114-118 Liberty St  
Hlg Elec Vent Co—13 Park Row  
Kandem Electric Co Inc—49 E 21st St  
Kinetic Engineering Co—41 Park Row  
Koithan & Pryor—39 Cortlandt St  
Kragh C W—184 Hudson Ave  
Laidlaw-Dunn-Gordon Co—115 Broadway  
Manhattan Electrical Supply Co—17 Park Place 110 West 42d St, 127 West 125th St  
National Brake & Elec Co—165 Broadway  
Robbins & Myers Co The—30 Church St  
Schoenberg R A & Co—906 6th Ave  
Smucker Arthur C—30 Church St  
Sorensen Co Inc C M—177 East 87th St  
Sprague Electric Works—527 W 34th St  
Strauss L L (For Rent)—74 W 125th St

# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Fans, Blowers, Air Compressors (Concluded)

Sturtevant B F Co—50 Church St  
Typhoon Fan Company—1544 Broadway  
Western Elec Co—463 West St & 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Westinghouse Traction Brake Co—165 B'way  
Wing L J Mfg Co—352-362 W 13th St

### Fire Alarm Systems (Interior)

Auto Call Co—30 Church St  
Automatic Fire Alarm Co—416 Broadway  
Edwards Co—Exterior St Bronx  
Leveridge Chas W Inc—133 Liberty St  
Metropolitan Elec Protective Co—130 W 26th St  
Ostrander & Co W R—22 Dey St  
U S E M Co—221 West 33rd St

### Fixtures and Portables

Bayley & Sons Inc—101 Park Ave  
Benjamin Electric Mfg Co—114 Liberty St  
Black & Boyd—17 E 47th St  
Caldwell Co Edward F—36-40 West 15th St  
Dale Lighting Fixture Co Inc—107-9 W 13th St  
Federal Sign System (Electric)—649 W 43rd St  
Findlay Mfg Co Robt—28 Warren St  
Falkenbach Mfg Co The—159 E 54th St  
Fox Electrical Corporation—119 W 42d St  
Gleason Mfg Co E P—37 Murray St  
Goetz A E—55 Barclay St  
Harlem Gas & Elec Fix Co—157-59 E 128th St  
Heather Co The R C—19-21 W 36th St  
Kandem Electric Co Inc—49 E 21st St  
Lighting Studios Co—220 W 42d St  
Livingston & Co J Inc—70 East 45th St  
McFaddin & Co H G—38 Warren St  
McHugh & Son Joseph P—9 West 42d St  
Mayer & Co Leon—1304 Boston Road  
Metropolitan Elec Supply Co—126 W 36th St  
Miller & Co Edward—68-70 Park Place  
Mitchell Vance Co The—294 Madison Ave  
Morris Iron Works Elmer P—136 Liberty St  
National X-Ray Reflector Co—21 W 46th St  
N Y Gas & Elec Appliance Co—569-571 B'way  
Parker Co The Chas—32 Warren St  
Pittsburgh Lamp Brass & Glass Co—35 W 23d St  
Roeser & Heidelberg Inc—54 W 37th St  
Schoenberg R A & Co—906 6th Ave  
Shapiro & Aronson—20 Warren St  
Sibley & Pitman—19-21 W 36th St  
Silvestro C—4149 Park Ave Bronx  
Simes Co The—20 Rose St  
Sommer Lighting Fixture Co Inc—386 Second Ave  
Standard Lighting Fixture Co—61 Warburton Ave Yonkers N Y  
Sterling Bronze Co—18 East 40th St  
"Vase-Kraft" Studio—333 Fourth Avenue  
Wahle, Phillips Co—Park Ave & 40th St  
Walter G E—157 East 44th St  
Western Elec Co—463 West St and 105 W 40th St

### Street Fixtures

Adams Bagnall Co—114 Liberty St  
Central Foundry Co—90 West St  
Fox & Co John—253 Broadway  
General Electric Co—120 Broadway  
Morris Iron Works Inc E P—136 Liberty St  
Mott Iron Works J L—118 Fifth Ave  
Westinghouse Electric & Mfg Co—165 B'way

### Globes—Reflectors

Adams Bagnall Co—114 Liberty St  
Dealing William—1 Hudson St  
Fox Elec Corp The—119 W 42d St  
Frink I P—24th St & 10th Ave  
Gillender & Sons Inc—19 Madison Ave  
Gleason-Tiebout Glass Co—200 Fifth Ave  
Haskins Glass Co—98 Park Pl  
Holophane Glass Co Inc—340 Madison Ave  
Hubbell Harvey Inc—30 East 42d St  
"Ivanhoe-Regent Works" of the General Elect Company—105 W 40th St  
Jefferson Glass Co—220 W 42d St  
Lighting Studios Co—220 W 42d St  
Macbeth-Evans Glass Co—143 Madison Ave  
Morgan & Sons John—61 East 9th St  
Northwood Co H—19 Madison Ave  
Organ Arthur—114 Liberty St  
Phoenix Glass Co—230 Fifth Ave  
Harry Pickhardt—98 Park Place  
Pittsb'g Lamp Brass & Glass Co—35-37 W 23d St  
Straight Filament Lamp Co—42 E 23d St  
Weeks Nelson—214 State St Brooklyn N Y  
Wilkinson Co—93 Underhill Ave Brooklyn N Y

### Heating and Cooking

American Elec Heater Co—Detroit, Michigan  
Bohn Elec Co C C—830 6th Ave  
Boker H & Co Inc—101-103 Duane St  
Cutler-Hammer Mfg Co The—144th St and Southern Boulevard  
Dover Mfg Co—30 Church St  
Federal Sign System (Electric)—649 W 43d St  
Fox Electrical Corporation—119 W 42d St  
General Electric Co—120 Broadway  
Guarantee Electric Products Co—47 W 42d St  
Hotpoint Electric Heating Co—147 Waverly Pl  
Hughes Electric Heating Co—Chicago Ill  
Johns-Manville Co The H W (Heating Pads) 41st St and Madison Ave  
Manhattan Electrical Supply Co—17 Park Place, 110 West 42d St, 127 West 125th St  
Metropolitan Elec Prod Co Inc—101 W 42d St  
National Elec Utilities Corp—103 Park Ave  
Pelouze Mfg Co—32 Park Place  
Phelps Mfg Co—2 Astor Place  
Pittsburgh Elec Specialties Co—412 8th Ave  
Prometheus Electric Co The—232 E 43d St  
Reimers Mfg Co—130 Church St  
Schoenberg R A & Co—906 6th Ave  
Sibley-Pitman Elec Corp—19-21 W 36th St  
Simplex Electric Heating Co—120 W 32d St  
Western Elec Co—463 West St and 105 W 40th St  
Wicks Electric Co—Cleveland Ohio  
Williams Roger—120 West 32d St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wood Electric Co C D—441 Broadway

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American Ironing Machine Co—46 E 41st St  
Bergbom & Roberg—46 E 41st St  
Fox Elec Corporation (Simplex)—119 W 42d St  
Wallace B Hart (Roma)—46 E 41st St  
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### Ringers

U S E M Co—301 West 37th St



# The New York Edison Company

## General Offices

Irving Place & 15th St  
Telephone Stuyvesant 5600

BRANCH OFFICES	TELEPHONE
424 Broadway	Canal 8600
126 Delancey St	Orchard 1960
10 Irving Place	Stuyvesant 5600
124 W 42d St	Bryant 5262
151 East 86th St	Lenox 7780
15 East 125th St	Harlem 4020
362 East 149th St	Melrose 9900

All showrooms open until midnight

EMERGENCY NIGHT AND SUNDAY  
CALL—FARRAGUT 3000

### *Territory Served by the Various Supply Offices*

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Sts, west of the Bowery and south of Catharine St

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

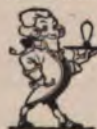
Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and South of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



"At Your  
Service"





VOLUME X

SEPTEMBER, 1917

NUMBER 4

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## The Edison Monthly

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Published by  
**The New York Edison Company**  
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Irving Place and Fifteenth Street  
New York City

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N F BRADY, President  
JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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On September 4, 1882, in a converted brick warehouse on Pearl street, Thomas Alva Edison placed in operation New York's first electric central station. It was equipped with six generators of 125 horsepower each. From that small beginning has grown The New York Edison Company of the present.

Uniting in an effort to commemorate fittingly the opening of this station, the American Scenic and Historic Preservation Society and The New York Edison Company are planning to erect a tablet on the building which now occupies the site of the original power plant. Appropriate ceremonies are being arranged and in order that the entire electrical industry may participate the annual Electrical Exposition which brings so many men of the industry to New York is to have an historic setting and many of the relics of the old days of the lighting industry in New York will be exhibited.



Somewhat eclipsed perhaps by the glamor of war preparations, the ceremonies this Fall marking the opening of the Catskill Aqueduct will nevertheless lose none of their significance.

The construction of New York's great waterway is by many considered the greatest engineering feat of modern times. The interest aroused by the approaching celebration brings to mind the fact that the problem of water supply is one which has confronted city authorities from earliest times.



As described elsewhere in this issue of THE EDISON MONTHLY, aqueduct building dates back to the ancient Egyptians. Their aqueducts, contemporaneous perhaps with the building of the pyramids, were, however, open canals with storage basins. The Phœnicians cut canals through rock and utilized the siphon principle in carrying water across valleys. It is this same siphon principle that carries water across the Hudson above West Point.

The Romans, too, hold an important place in the history of hydro-engineering and parts of their work still remain. It was the Romans who conveyed water across valleys and rivers on high arched bridges. We have the modern counterpart of this type of construction in the High Bridge which carries New York's supply of Croton water across the Harlem River.

In 1810, James Watt extended a flexible main of iron pipe across the River Clyde. We have something approaching this method of construction in that section of the Catskill aqueduct which carries the water to Staten Island under the Narrows. In the present instance, sections were joined together in a cradle which curved up from the channel bottom.

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Cradle and pipes were laid on the bottom as the construction scow worked its way across the water.

But, while interesting in the similarity of construction methods employed by both the ancient builders and the modern engineers, the real interest in the new aqueduct lies in what it means to New York and what methods were employed to overcome the obstacles of construction.



The history of New York's water supply begins with the wells which supplied the Colonists. But wells soon became inadequate and it was necessary to go beyond the town limits for water. An interesting feature of this quest for water lies in the fact that, until the present Croton supply was available, the city in its rapid growth soon reached the water source. Thus the Collect Pond, the brooks of Manhattan and the Bronx River soon found themselves within the town limits and no longer suitable for drinking purposes.

The northern quest for water has at last reached the Catskill Mountains, 120 miles away. How New York secured its new supply and what it means to the city will be related in a second instalment of this article.



Pointing out a waste of half a billion dollars last year through the inefficient use of coal, Vanney H Manning, Director of the Bureau of Mines, Department of the Interior, says that this waste is continuing at an even greater rate this year.

"For every pound of coal we waste," he said, "there is that much less

available to put into energy to end the war.

"Last year the United States mined 600,000,000 tons of coal, the greatest production ever witnessed in the world, and of this amount we wasted 150,000,000 tons, or 25 per cent, through inefficient use.

"As an example, in the modern, efficient power plants of the country 20 per cent of the heat in the coal consumed is converted into power, whereas in the small power stations the efficiency frequently drops below 10 per cent. Although the average efficiency of all kinds of steam-power plants in the United States can be only a matter of guesswork, it is quite probable that the average is somewhere in the neighborhood of 5 or 6 per cent of the energy of the coal transformed into useful energy ready for distribution. So you can see that if it were possible to elevate the average efficiency to something near the maximum now attainable in steam plants about three times as much energy would be available for the productive industries of the country."



If further evidence were necessary in support of this official statement it is to be found in the various New York factories which during the past months have abandoned their steam plants in favor of central station service. Engineering investigations disclosed the fact that some plants were consuming more than 2,000 tons of coal a year while the central station could furnish the same power with a coal consumption of less than nine hundred tons.



# The Edison Monthly

## Retrospect

"Thirty-five years." It is quickly said,  
And the time they mark is swiftly sped—  
So swiftly, a twelvemonth more or less  
Leaves hardly a trace in consciousness.  
But reckoned by full and fruitful hours,  
By daily growth and expanding powers,  
By work and purpose—whether it be  
The test of a man or a company—  
Life is not measured by abstract thought,  
But in terms of action, fitly wrought.

Appraising thus what is counted great,  
This Edison Anniversary date  
Means "Thirty-five Years of Service," spent  
In forward-looking development  
Of all electrical use and ways  
That serve the call of our modern days.

In household quiet, in crowded mart;  
In giant stroke or delicate art;  
In tackle and hoist, in bore and drill;  
In common usage, in master skill;  
In dainty device and huge machine;  
In spectacle shown on stage or screen;  
In rock-hewn tunnel and storied height;  
In statue glowing with radiant light:  
In all of these may Achievement find  
Proud retrospect of enduring kind,  
Beholding Invention's widening spheres  
Yet more enlarged with increasing years.

Yes, good to rejoice in progress gained,  
But better to glimpse the unattained;  
For, waiting beyond all work well done,  
Stretch further fields to be sought and won.

*Frederick Moxon*

# Aqueduct Prototypes

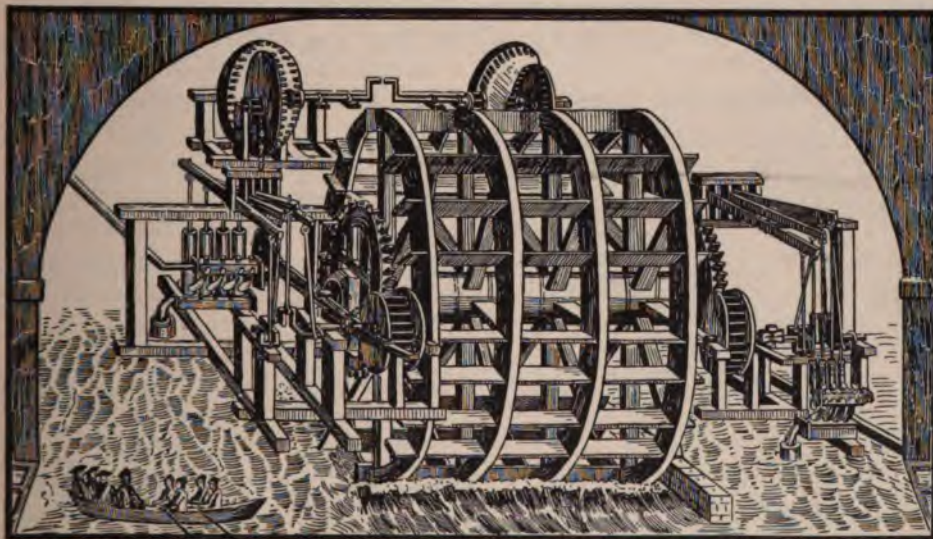
SHOULD the layman be asked to name the greatest engineering achievement of the present generation, he would undoubtedly say the Panama Canal. It is probable that the Catskill Aqueduct system, the completion of which is to be celebrated on October 12, 13 and 14, should be ranked next in the matter of difficulties overcome and numbers benefited. Although there might be some disagreement on that score, it is generally conceded that New York's new aqueduct is without dispute the most extensive enterprise of its kind that the world has yet seen.

Such a statement is not made off-hand, nor without reference to the genius of other nations and other ages. On the contrary, a brief review of these various earlier accomplish-

ments gives the best basis for understanding and appreciation of the magnitude of the work just accomplished.

Although one is apt to take it for granted that an artificial water supply is a modern development, in reality it is almost as old as thirst. Pyramid building was not the only occupation of ancient Egypt, nor did Babylon and Nineveh lack for water. The systems prevailing there antedate piping, for water was provided by means of open canals and storage basins.

Of all the really old peoples, the Phœnicians were the best engineers. They cut channels through rock and carried water across valleys in siphons. Thus the city of Tyre was supplied from artesian wells at considerable distance, the flow being piped or



*Drawn by Edna Hood Litho*

*From an old Print*

Type of Floating Pump, Placed in the Thames near London Bridge in 1582 to Supply River Water for the City



## The Edison Monthly

literally "rocked" to a reservoir.

Jerusalem, under the Old Testament kings, had a better water supply than that now available under Turkish administration. Of the two conduits from the "pools of Solomon" one still remains. It is nearly twenty miles long, counting the windings.

Prominent among the world's famous aqueduct builders were the Romans. The first of the eleven waterways which supplied Rome was built in 312 B C under the old Republic and the last in 226 A D by the Emperor Trajan. Radiating in all directions into the surrounding country, aqueducts tapped springs, lakes and streams from ten to forty miles distant from the Eternal City. The first aqueduct, called the Aqua Appia, was a comparatively modest affair, some eleven miles in length. The second, the Anio Vetus, was a truly remarkable enterprise, being forty-three miles long, with only 1,100 feet above ground. The engineer was one of the great Roman generals, Manius Curius Dentatus, known for his victory over Pyrrhus in 275 B C.

His extensive activities suggest that



*Drawn by Edna Hood Linsak*

Lacking Aqueducts, Venice in the Sixteenth Century Depended Upon Public Wells, such as this in the Campo Sant' Agnes

Cæsar Augustus aspired to fame as a builder of aqueducts, his son-in-law, M Vipsanius Agrippa, serving as engineer and architect. Besides constructing the Aqua Alsietina, twenty-two miles long, solely as a source of supply for the sham naval battles in the Naumachia, the first Emperor of Rome was responsible for the Aqua Julia and the Aqua Virgo, the latter being restored to use in 1570 by Pope Pius V.

From this point on the aqueducts of Rome point the downfall of the Empire, beginning as early as the reign:



*Drawn by Edna Hood Linsak*

Part of the first London Aqueduct, Built in 1609. The Wooden Trough is lined with Lead. Wooden Mains were used in London until 1800



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of Caligula and Claudius. The former commenced what were the most ambitious of Rome's waterworks, two aqueducts whose combined length totaled 107 miles; Claudius finished what his predecessor began. But, unfortunately, the work was done on a system suggesting some classical "Boss Tweed." The price of wholesale bribery was taken out of the work, and the mammoth aqueducts crumbled to

final attack. He discovered a secret passage in one of the aqueducts, which would bring his men to the Aurelian gate. But something went wrong, and when the Goths arrived they found the Romans ready for them. Discouraged by this failure, the siege was raised.

If Roman law followed the Roman legions, so did Roman aqueducts. In fact, some of the most remarkable



*Drawn by Edna Hood Linsak*

**The Aqueduct Bridge near Nîmes, France, Architecturally one of the most Famous Structures. The Huge Blocks of Stone were Fitted without Cement**

ruin, while those built centuries before still stood firm.

A little more than three hundred years later, the Goths were besieging Rome. The struggle might really have been called a war of the aqueducts, for the battle centered around them. Between the Latin and the Appian Way, two principal aqueducts crossed, and here Vitiges, the Goth leader, established his camp and laid siege to the city.

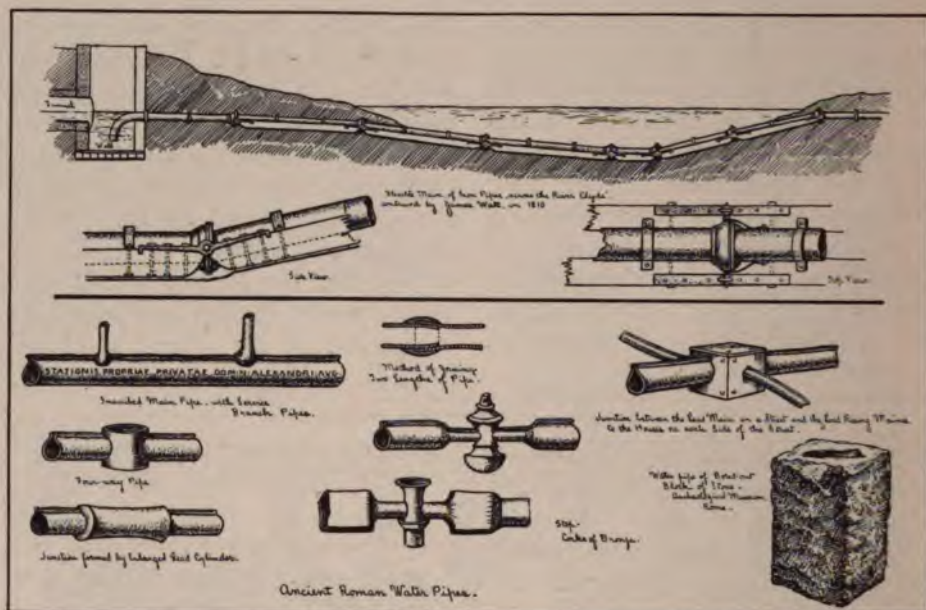
Matters hung on thus for a year, while sickness raged on both sides of the walls. Then the Goth leader planned what he purposed to be a

specimens of Roman work are located outside the Latin Peninsula: in France, in Spain, in Asia Minor and along the African coast. "The solitudes of Asia and Africa," writes Gibbon, "were once covered with flourishing cities whose populousness, and even whose existence, was derived from such artificial supplies of a perennial stream of fresh water."

And so it is not surprising to find some of the finest Roman work in Asia Minor, in France and in Spain. Possibly the most famous of all these examples of Roman engineering is at Nîmes, which at the time of Augustus



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Drawn by Edna Hood Linnab

Above—Iron Pipe under the River Clyde. Below—Group of Water Pipes from Ancient Rome and Less Ancient Glasgow

was a flourishing seaport town. Outside the city is the aqueduct-bridge crossing the river Gardon at a height of 160 feet. "For lightness and boldness of design," writes an architectural authority, "the Pont du Gard has no rival among Roman remains." It is supposed to have been constructed under the direction of Vipsanius Agrippa, the master builder of Rome, a self-made man, who raised himself from obscurity to uncomfortable grandeur as son-in-law to his Emperor.

The downfall of Rome put a stop to all such enterprise. The aqueducts of the Middle Ages may be most briefly summed up, because there was none, except one in Moorish Cordova. Not until 1236 was even the first water-pipe laid in London, and it took fifty years to connect this with the springs at Tyburn. The situation

was hardly better when, in 1582, one Peter Maurice placed in the Thames at London Bridge a floating pump "which raised water to such a height as to supply the uppermost rooms of the loftiest buildings, to the great admiration of all."

Not until 1609 was the first aqueduct of London built, to carry water to the New River Head reservoir from Chadwell and Amwell Springs twenty-one miles away. Paris, too, was no better off than her rival metropolis, depending entirely on the Seine till 1183 when a small aqueduct was built, which, however, furnished only one quart per capita daily.

This same century also marks the entry of America into the history of aqueduct building. In 1620 the little flock of Pilgrims landed; and by 1652 the colonists had built the first water-works in the New World.

# Celery Specials

"CELERY SPECIALS" might well be the name applied to the wagons used by the George F Fish Company in the delivery of the daily supply of celery to New York's large hotels, restaurants and markets.

There is a certain steadiness and regularity in the demand from day to day; just so many deliveries must be made and so many standing orders filled. But while deliveries are fairly constant and may be planned for, there is plenty of variation in the work the electrics are called upon to do in connection with carting incoming shipments from railroad train and steamer. Celery is received from all parts of the country and some is imported from Bermuda. Sometimes a train will come in at the same time a boat is unloading its cargo. Then

the trucks must work far into the night until every bunch of celery is stored away in the warehouse.

For the usual heavy carting, however, a three-and-a-half-ton G V handles all the incoming shipments. This car has been in active service for nine years, and is still in as good condition as ever. The smaller wagons are also General Vehicles, one a two-ton and the other a one-ton machine which have been in service for seven and three years respectively. More than forty miles is averaged on the hotel route by the two-ton car, the working day of which begins before daylight. The smallest of the three cars is held in reserve to go out on rush orders or special deliveries and to assist the heavy truck with incoming produce.

In the nine years since the Fish



*Photographic Bureau of The New York Edison Company*

The Three Electric Trucks Used by George F Fish for the Delivery of Celery Throughout New York



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Company gave up horses to adopt electrics, the company has had ample opportunity to test out the system in its every phase. Dependability and time saving in getting about crowded city streets, are two features which have been especially noticeable in the electrics in the concern's service.

It does not matter whether there is heavy snow on the ground or not, the hotels require their regular supply of celery and they must have it on time. The crates just landed in the city must be removed with equal speed. The electric cars can get about in practically every sort of bad traffic conditions; in ordinary weather their easy starting and stopping control enables them to make good time.

The demands made by the Fish Company on their trucks have been far from light, but today all three cars are in excellent condition, and the oldest is doing its daily service and keeping up as good a record as either of the cars bought more recently. Time has tested out this electric delivery service and proved its worth.

### The Light Fantastic

WHATEVER of superiority the ancients may have enjoyed in the way of dances, they missed one important particular. Missed, that is, from the standpoint of modern interpreters of the lyre and pan-pipe. If these old-time dancers had need of a bit of twilight crimson or a shaft of sun's rays for their effects, evening or noon-day glare had simply to be waited on. It might have been uncomfortably cool and it might have been unbearably hot. The dance, in any event, proceeded

under the influence, scorching or otherwise, of the only luminary.

For those ancient dances—renderings in the poetry of motion of themes from the poetry of sound—often required a setting of seasonable light. The fact is amply established not only in the verse of Homer but in the measured reasonings of Plato and the flowing history of Zenophon. Vases and friezes as well depict these votaries of Terpsichore translating the dawn in the light of the same and the spirit of after-glow in the half light of the proverbial twilight grove. Nor did this argue any flaw in artistic ability. Then, as now, the dancer was thought to have enough to do without supplying the effects of light and shade.

Today, it must be admitted, there are few twilight groves within reasonable reach of paying audiences, neither would such audiences relish getting up at dawn to witness a treatment of that theme.

The Helen Möller School which has been responsible hereabouts for a resurrecting of the Greek dances has made the utmost of its opportunities with respect to lighting. In other words, the studio or salon of this institute has been fitted up with a real theatrical battery of electric projectors.

The big room, which is found on the top floor at 311 Fourth Avenue, suggests the inner courtyard of a classic temple. Not only does a glass ceiling lend an out-of-door feeling to the place but balconies that surround it on three sides give a final touch to the openness of the classic setting. It is from these balconies that the few fortunate guests who may from time to time be bidden here witness



## The Edison Monthly

the charming accomplishments of the Möller students.

It is also from the vantage of these balconies that the needed projectors play their rays on the dancers circling in the area beneath. From one side, as occasion requires, a mellow stream of red light darts down to bathe the

A third "effect" is given by a finely adjusted spot-light from still another balcony. By this means the special thread of a theme may be followed and indicated.

Yet it must not be thought that the salon is dependent entirely upon these light sources. For all the



*Photo Underwood & Underwood*

Miss Möller (Third from Left) and Pupils in Their Much Written-of Portrayal of Orpheus

figures below and even to follow them in their glidings and boundings about the court. From the side opposite a second projector directs at times a volume of lavender rays upon the scene. Thus is produced the semblance of evening or any other half-light hour that the theme demands. And it is twilight—the music, the dancers, the entire sensation all say so regardless of the time-o'-day and the doings and soundings of the street without.

glass ceiling, the New York skies and the New York sun are too capricious to be relied upon. To provide against the three times out of four when they cannot, their duties are filled by five big silk-covered globes, one over each corner, with the remaining and largest in the center. It is under such auspices that the present day votaries who gather here disport themselves, independent of sun and cloud and the universe generally.



# The New Bendel's

"KEEPING up with the times" is undeniably one of the secrets of business success. If proof were required, one need only contemplate the alacrity with which prosperous and long-established business houses adopt the latest in methods.

The establishment of Henri Bendel, Inc., at 10 West 57th Street is a conspicuous example of this. Recently enlarged by the addition of a new building—which, after the weather has had its way with it for a time will appear from the outside, as it is within, a continuation of the old structure—this house has also been reorganized throughout and fitted with the most up-to-date equipment in every particular. From the display rooms with their elegant fittings and carefully schemed lighting to the workrooms where the establishment's costume creations have their origin, everything is completely and scientifically modern and efficient.

Workroom conditions at Bendel's are as nearly ideal as possible. These long rooms, two or three on each floor of the buildings above the third story, are painted white, both walls and ceilings, and have large windows on the front for daylight and air.

Each workroom with its workers forms a complete unit in itself; in it a costume or garment is cut, fitted to a model, basted, stitched, pressed and given the finishing touches. This of course presupposes a complete work-



*Photographic Bureau of The New York Edison Company*

**Bendel's Large Display and Fitting Rooms, with Their Neutral Tints and Artistic Lighting, Are Ideal for Showing Colors and Fabrics**

ing equipment; and so each workroom has its complement of electric irons and electrically operated sewing machines.

The electric iron installation, taken all in all, is probably the largest and most varied in the city. The irons used in each workroom are generally connected to a central standard in the center of one large ironing table. Their cords are suspended from separate brackets extending out far enough for the workers to use the irons with freedom and convenience. To do away with the possibility of

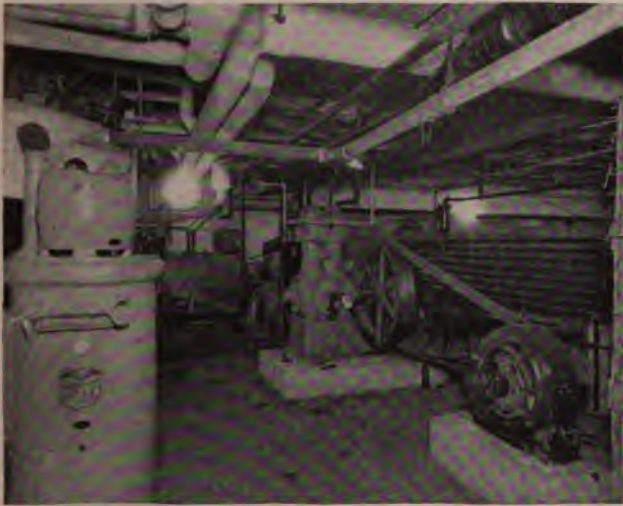
## The Edison Monthly

scorched goods caused by the forgetfulness of a worker who may go away leaving the current of his iron still turned on, each bracket is provided with a red bulb which remains lighted while the iron is in use, but goes out when it is disconnected. Irons of many shapes and sizes, made by the Simplex Company, are employed. Alike in one particular, they are sup-

plest corners and leaves no shadow anywhere. This is the original system planned by Mr Frank, the manager of the establishment. The fixture used for this ideal workroom illumination is a combination of wide shade and inverted bowl; the shade, wider than the bowl, throws the light down and around, while the bowl casts it against the white ceiling for reflection. The

lamps are 400-watt Type C, and with the peculiar character of their shades give a light similar to daylight, the quality of which is especially valuable in a place where so much depends upon the matching and use of colors. Moreover this type of workroom illumination allows for the complete elimination of all drop lights and does away with the confused appearance these so often give.

It also contributes to



*Photographic Bureau of The New York Edison Company*

To Maintain a Constant Temperature in the Fur Storage Room Requires the Operation of This Large Electric Refrigeration Plant

plied with current from the mains of The New York Edison Company.

Working equipment is important, but equally important, decided the management of Bendel's, is the light by which work is to be done. Consequently much thought was expended upon the problem of artificial lighting, with results not surpassed by anything that has been done in a similar establishment in the city. Imagine a workroom so illuminated that all light comes from ceiling fixtures far up out of the way, yet so arranged that their light shines into the far-

a certain restfulness that these rooms, despite their busy character, undoubtedly possess, which must have its beneficial effect on both workers and on product.

In the display rooms, occupying the first, the second and the third floors, lighting and color effects—or rather the absence of color—have received the same minute and careful attention. A putty color in woodwork and floor covering of browning gray with occasional squares of gray with *fleur-de-lis* pattern has been chosen as the best neutral background



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for setting forth the beauties of fabrics and costumes. Lighting has been planned to complement this. Subdued illumination comes from the heavy brass fixtures with inverted bowls of beaded glass and the same mellow effect of light is provided in the show cases by the aid of reflectors and screens. In the small fitting rooms soft mirror lighting is obtained by reflectors behind tubular bulbs which throw the light down through opaque glass screens.

As a necessary part of fur garment manufacture, Bendel's also maintains a storage vault electrically cooled to 18° Fahrenheit. The ammonia compressor in the basement is a Vesterdahl machine, operating with a fifteen horsepower motor supplied by Edison current. The storage room itself is lined on all four sides by cooling pipes, affording an evenly distributed temperature, which with its dryness makes for ideal fur preservation.



*Photographic Bureau of The New York Edison Company*

A New and Taller Structure, Adjoining the Old, Makes the Establishment of Henri Bendel, Inc, One of the Largest of Its Kind in the City

# Can All You Can

**E**LECTRICAL adaptations to the household are nothing new. In fact, today they are taken decidedly for granted. And just as in any line of effort a need begets new methods, so the present necessity and interest in food economy has brought electricity to the fore in a new role—that is, as an aid in the drying and preserving of fruits and vegetables.

It was as short a time ago as the Fall of 1916 that electric insulated ovens and electric fireless cookers were first used in canning and preserving these foodstuffs. The method was first tried out by the Home Economics Bureau of The New York Edison Company, then communicated to the government and carried on most successfully by a government canning expert at the Electrical Exposition in the Fall. During the present Summer the Bureau has been demonstrating these ovens and cookers with special reference to food conservation.

The chief value of electric ovens and fireless cookers used in this way, particularly with the "cold-pack" method, is the uniform temperature which electrical heating supplies. This does away with all possibility of imperfect or intermittent sterilization, which, as those versed in bacteriological matters know, allows the development of the spores that will later become bacteria and produce fermentation. Moreover, the flavor of fruits or vegetables is found to be greatly superior when the unvarying heat of electricity is applied.

Several well-defined steps are re-

quired in canning vegetables by this method. A first step, and a natural one in any case, is the grading of the product according to size, quality and ripeness. It is washed and then blanched in boiling water for five or ten minutes, and afterwards plunged for a moment into very cold water. The jars meanwhile have been heated and the electrical oven by the way is particularly good for this since it can be regulated to make them hot enough without danger of breaking. The cold product is now packed in these hot jars, with one teaspoon of salt to a quart and covered with boiling water. Covers are then put on loosely and the cans set in the electric oven or electric fireless cooker to be maintained at a temperature of 212 degrees Fahrenheit for the specified time. This is called "processing," and the length of time it should continue varies with different vegetables and fruits. Processing completed, the cans are ready for cooling and putting away to furnish delectables for future use.

## *Open Kettle Method*

Where it is desirable or necessary, as in the making of preserves, to use the open kettle method, the electric oven by no means loses its importance. For now the kettle containing the preserves, instead of being set on top of the stove and requiring constant stirring to prevent burning, is put bodily in the oven where heat reaches it with no danger of scorching and does the cooking quickly and evenly.

Drying by electricity, that is with



## The Edison Monthly

an electric fan, is, of course, nothing more than a new version of the drying our grandmothers and mothers used to do, except that now the process is applied to nearly all fruits and vegetables, including those which it would never have occurred to the old-fashioned housekeeper to treat in this way. The equipment required is simple and really inexpensive—an electric fan and a pile of drying trays. (Any home manager with ingenuity can fashion these herself if she desires). These trays—usually four in number—have wooden sides and bottoms of galvanized wire screen covered with a thickness of cheesecloth to prevent the possibility of discoloring the product. "Drying racks" they are

called, and when the electric fan is placed in front of them, tilted slightly upward or at an angle of about thirty degrees, the breeze plays up through the screen and in due course "dehydrates" the fruit or vegetables to a condition that allows of keeping them over the winter. They can then be stored in muslin bags or paraffine paper containers, and put away until needed.

Naturally a certain amount of preliminary preparation is required, which varies according to the nature of the fruit or vegetable to be dried. Vegetables are first thoroughly washed and drained. If root vegetables they are pared thinly, sliced thinly and placed on the racks. It takes them six or eight hours to dry sufficiently,



*Photographic Bureau of The New York Edison Company*

**An Electric Fireless-Cooker Which Can Be Set on the Floor or Table Performs the Function of an Oven in the Canning Process**

## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

In an Electrically-Equipped Kitchen, Drying of Fruits and Vegetables Requires Only the Connection of an Electric Fan in Front of a Row of Drying Trays

according to the quantity of water they contain, a leathery and pliable appearance being the signal for the drying process to cease, care being necessary to avoid making the product too brittle. Soaking over-night, of course, is required before the vegetables can be properly cooked.

To avoid discoloration with such vegetables as turnips or carrots, a ten-minute soaking in a four per cent salt water solution after slicing proves efficacious (a four per cent solution is obtained by a teaspoonful of salt to a quart of water); then drying can proceed as in other cases.

The entire process may sound somewhat complicated; it is in reality entirely simple; and rows of attractive cans for winter use justify the time and current necessary for the process.

### To All Workers With Electricity

So many wonders ye play with,  
That wonders they seem no more;  
Ye upset all yesterday's theories,  
Ye scrap-heap all yesterday's lore.  
Magic—that's part of your routine—  
Marvels—ye do all day long—  
Outfitting the commonplace people  
With Aladdin's lamps for a song.

Visions translated in service,  
Dream tissue spun into deeds,  
Earth forces harnessed and driven  
To work in your shops for Earth's  
needs:

All blend in the song of the motor,  
All sing in the dynamo's throb;  
Oh, fortunate dealers in wonders,  
Well may ye be proud of your job!

*Waldo T Davis*



# Building the Chevrolet

A COMPLETED automobile every twenty minutes; twenty-five every working day; seven thousand five hundred every business year; that is the product of the New York factory of the Chevrolet Motor Company. From the big double doors of this long yellow brick building in Eleventh avenue comes an apparently never-ending stream of glistening motor cars, complete from tire to top and trimmings, and ready for a spin through city avenue or country highway. Every twenty minutes a new one rolls forth, ready for a prospective owner, and in like manner, to keep up the constant output, three other machines are started during every hour.

The Chevrolet establishment has the distinction of being the only automobile factory on Manhattan Island. This lack of local competition, however, has in no way affected the efficiency of the plant. Indeed, the system and dispatch with which an automobile is built by the Chevrolet workmen is simply amazing. One can see a car take shape from the heterogeneous groups of parts in the assembling room, while to watch the progress of a car from chassis to completed vehicle one only has to pick

out a particular chassis and follow it from end to end of several long rooms until it finally rolls out of the building under its own power.

From all corners of the country come the parts that go to make up the



*Photographic Bureau of The New York Edison Company*

Here the Final Stages of the Work Are Completed, that of Assembling the Remaining Parts and Making the Car Ready for Street Service

Chevrolet car. The motors arrive from Michigan, the steel from Pennsylvania, and the leather from Boston. And at the Eleventh avenue factory all these parts are assembled with lightning speed into completed machines.

The materials reach the basement of the building by means of a big electric elevator, subsequently to be distributed to the various stock rooms where they are held against the time they are needed. Steel for the chassis is taken to a small room at the extreme easterly end of the building where the



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**Setting the Motors is Heavy and Difficult Work**

work of building begins. Here is a force of mechanics with electrically operated drills, riveters and hammers. These men work with remarkable swiftness and frame after frame is put together and rushed to the long assembling room where nearly a dozen operations await it.

Each of these skeletons is set up on a movable truck, or blocks, to facilitate progress through the assembling process. The first operation is the installation of the axles. These attached, the chassis is moved to another part of the room where a motor is dropped into place and bolted fast. Following this another shift is made and in another section of the room the transmission gears and case are assembled and installed. At the next stop of the truck two workmen bolt fast the gasoline tank, after which the mass of iron and steel really begins to look like an automobile.

But the car is by no means complete. The truck is pushed to another section of the room where men install gear shifts and brake pedals, following which another group in another section of the room bolts fast the starting motor. After this the brake rods are set in place and finally the radiator is installed and connected. This is the last stage in the chassis building and the power plant of the

car is now ready to be tested out. This is accomplished in a shed to which the portable truck carrying the skeleton chassis is moved. Here nine engines are lined up and gasoline fed into their tanks. Following this the motors are started and for a few moments the shed sounds like Bedlam. But gradually the motors are toned down or tuned up as the case may be, by grease-begrimed experts who have charge of all the testing work. This test satisfactorily passed,



*Photographic Bureau of The New York Edison Company*

**Motors Waiting to be Tested Out Before Being Installed**



## The Edison Monthly

the chassis, still on the movable truck, is rushed back to the main building and turned over to the painters, in whose care they may now be left.

Meanwhile, in other sections of the factory, parts that will go to make up the completed car are under construction. The bodies, which arrive fully assembled, go to the special body-painting department. Here they are primed, leaded, sanded, colored and varnished twice. After each of these operations the body is moved along the floor from place to place until it is in a position to be shifted into the rubbing room for the final touches.

From here the polished tonneau is moved to the third floor, where the upholsterers or trimmers work. Here all leather fittings are made and installed. These include cushions, trimmings and the like. Electrically operated hydraulic presses are used here to press the hair together and form the cushions. Two of these presses are kept in constant operation, while dozens of electrically operated sewing machines are used to stitch the coverings together.

As soon as the bodies have been painted and trimmed they are sent down-stairs to the main assembling room to which the chassis, now completed, have also been sent. Here is a tire room and a wheel room too, and soon the bodies are mounted on the chassis, the wheels and tires put on and the completed car is rolled out of the factory and into the courtyard, where its tank is filled with gasoline and it stands ready for a test spin.

For light and power the Chevrolet factory depends entirely upon the central station, the motor installation and the lights being supplied by The New York Edison Company.



*Photographic Bureau of The New York Edison Company*

In the Upholstery Making Department Electric Cloth Cutters Cut the Cushioning Material for a Dozen Cars at Once

### Shrine Lighting

THE use of electricity in purely decorative effects is everywhere familiar. A word may be said here to advantage regarding its recent employment in the exacting duties of a religious accessory.

Reference is not made either to church lighting as usually understood or to the occasional illumination of a whole edifice for some notable event. Attention is instead invited to the part played by electric light in the mission of those difficult fabrics called shrines.

In common with other established features of ritual, the shrine of today has changed little from the canopies of silk and velvet and seasonable flowers that of old framed the sacred statues at Easter or the Assumption. Its general plan has remained what it is, not through lack of inventiveness but because the lines followed have expressed their purpose with an absoluteness that permits of no denial. The fact of an innovation, not in plan but in the manner of lighting, but supports the contention.



## The Edison Monthly

Formerly the one means of lighting up either statue or drapery was the candle. Large branch sticks were placed as nearly inside the shrine as possible, reinforced by numerous stout candle ends inserted in glasses. Great care had to be given the protection of the surrounding hangings, a care which meant of necessity the indifferent lighting of the entire shrine. Proximity of nearby chandeliers often distorted values, as, in fact, was commonly the case with the candles alluded to.

A solution of the difficulty and the realization of the perfect shrine was found in the use of the incandescent lamp. The accompanying picture shows what has been done in shrine lighting at Holy Trinity Church in West Eighty-second Street.

Several shrines, the work of Mrs

S H Bicknell, the well-known designer, have appeared here on special occasions within the year. The one pictured, with a canopy and back-screen of white drapery, while making use of candelabra for direct effect, would have been decidedly ineffective but for the presence of electric indirect lighting. The lights in question, ordinary fifty-watt bulbs, were inserted in reflectors behind the valance of the hood, where medallions of sufficient width concealed them from without. The advantage of lights placed at this angle may be observed in the naturalness of the shadows on the two statues. Within this brilliant illumination the whole composition, colored and set off by flowers, was impressive to an extent impossible under any other circumstances.

The same statues in a second shrine, this time a creation of costly silks, laces, and elaborate floral setting, were brought out in milder light though distinct in every particular. As before, the principal lighting was set within the canopy but filtered through bulbs of an appropriate color. A further source was arranged behind a miniature decorative screen at the foot of the shrine, where two small lamps cast a subdued glow about the flowers embowering the base of the statues. Additional light was obtained by scattered bulbs hidden within a broad shirring outlining the outer arch of the niche.

A shrine framing the Blessed Virgin, a design produced for the October devotions, employed a liberal flower banking in place of the usual draperies of silk or satin. Under these circumstances occasional glimpses of direct light were in keeping.



A Shrine Lighted by Concealed Bulbs Within the Draperies



## Another Landmark Passes

WITH the passing of the old St Denis Hotel at Broadway and Eleventh street, there is called to mind the fact that this hostelry, among the last of hotel landmarks in the city, was the pioneer in a course which has since been recognized and adopted by many of the large hotels of New York—the use of central station electrical service and the discarding of its own generating plant. In 1904, though it boasted, as the experts put it, “one of the most thoroughly equipped steam plants that any institution of its kind need

possess”—the proprietors decided that a change to central station electrical service was desirable and the whole system was made over forthwith.

Of course, this was late, as the age of the hotel went—for it was built in 1853 and had thus already seen fifty-one years of service to the public. But it was early in the history of the adoption of central station electrical service by large buildings, and the St Denis was a veritable pioneer. Without the hardships of pioneering, however, for central station service proved an advantage and a saving



*Photographic Bureau of The New York Edison Company*

The St Denis, Which Will Soon Be Lost to New York, Was One of the First Hotels to Discard Its Generating Plant in Favor of Edison Service. The Change Was Made in 1904

## The Edison Monthly

from the first, and the hotel has rounded out its long career with the best of refrigeration, elevator service, kitchen and laundry, fan equipment and lighting.

This change came about while William Taylor & Company were still the proprietors of the hotel. They had leased it in 1875, when Eleventh street was at the center of city activi-

ties and the present Broadway was a thing undreamed. In those days the hotel was the admired stopping-place of the most important out-of-town visitors to the metropolis.

"A stranger and visitor to the Hotel," says an old guide book, "looking across from the hotel parlors and public rooms, might fancy himself in some venerable cathedral town of England, for just across the way are the beautiful Gothic edifice of Grace Church and its rectory and connecting buildings, set amid rich velvety lawns."

The William Taylor management is also responsible for the growth of the hotel structure to its present size. So greatly did patronage increase after their assumption of the proprietorship, that before long an addition had to be built back on Eleventh street to meet demands for accommodations. Previously the hotel had contained two hundred and fifty rooms; now it became an edifice of four hundred, and included also the far-famed Colonial Room which has since been



*Photographic Bureau of The New York Edison Company*

Sarah Bernhardt Used to Pen Her Letters in the Ladies' Writing Room, Whose Cheerful Red Plush Furniture and Red Velvet Curtains May Have Increased Her Perennial Optimism

the scene of many of New York's most notable banquets and dinners.

Naturally the great popularity of the hotel at this time and afterwards was due in no small measure to the fact that directly opposite on the corner of Broadway was established some time in the '80s the large department store of James McCreery and Co, while down at the corner of Tenth street the A T Stewart building, later Hilton, Hughes and Company, the forerunners of John Wanamaker, offered inducements to out-of-town shoppers. Nearby, too, was Union Square, with its fashionable theatres and restaurants; while the cars of Broadway, offering easy access to the downtown business district, in the early days drawn by horses, later propelled by cables and then by electricity, passed the very door.

From the main entrance on the Broadway side the long, narrow lobby, with its high mahogany wainscoting, its comfortable black leather upholstered chairs and settees and its subdued, green-shaded lights received



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the visitor immediately into the heart of its wholesome hospitality. The restaurant, restful and pleasant with its color scheme of old blue, was convenient at the right on the ground floor; on the other side, and at the front, the café, with its gleam of rare polished woodwork, served its stocks of the rarest vintages. Cherished also in the memory of hundreds of

St Denis practically alone in the neighborhood as far as buildings of its kind were concerned, and that Broadway in this district has taken on a different and less attractive character from that of the older days, the hotel never relinquished one iota of its pride in serving the public with up-to-date perfection, both as to cuisine and as to externals which

particular moderns require. Its equipment has made this possible. That it must now, after sixty-four years, make way for that synonym of progress—the loft building—is due, not to any failure of its own, but only to that resistless changing of the city against which no equipment can compete. But thanks to those up-to-date methods of service its place in hotel annals is more than secure for many years to come.



*Photographic Bureau of The New York Edison Company*

In Its "Refinement of Architecture" as Well as in Its Cuisine, the Colonial Room Has Long Held an Important Position Among New York's Famous Banquet Places

guests was the old Broadway parlor at the front, one flight up; the suites of rooms with their ponderous furniture upholstered in plush—red or green or blue; the long and winding corridors with their gaily patterned carpets—and, quaintest touch of all, the flower-patterned wash-bowls and pitchers which up to the last supplied the bedrooms.

But to the very end, in spite of old-time furnishings, in spite of the fact that the business center of the town slipped away to the north and left the

### Archaic Illumination

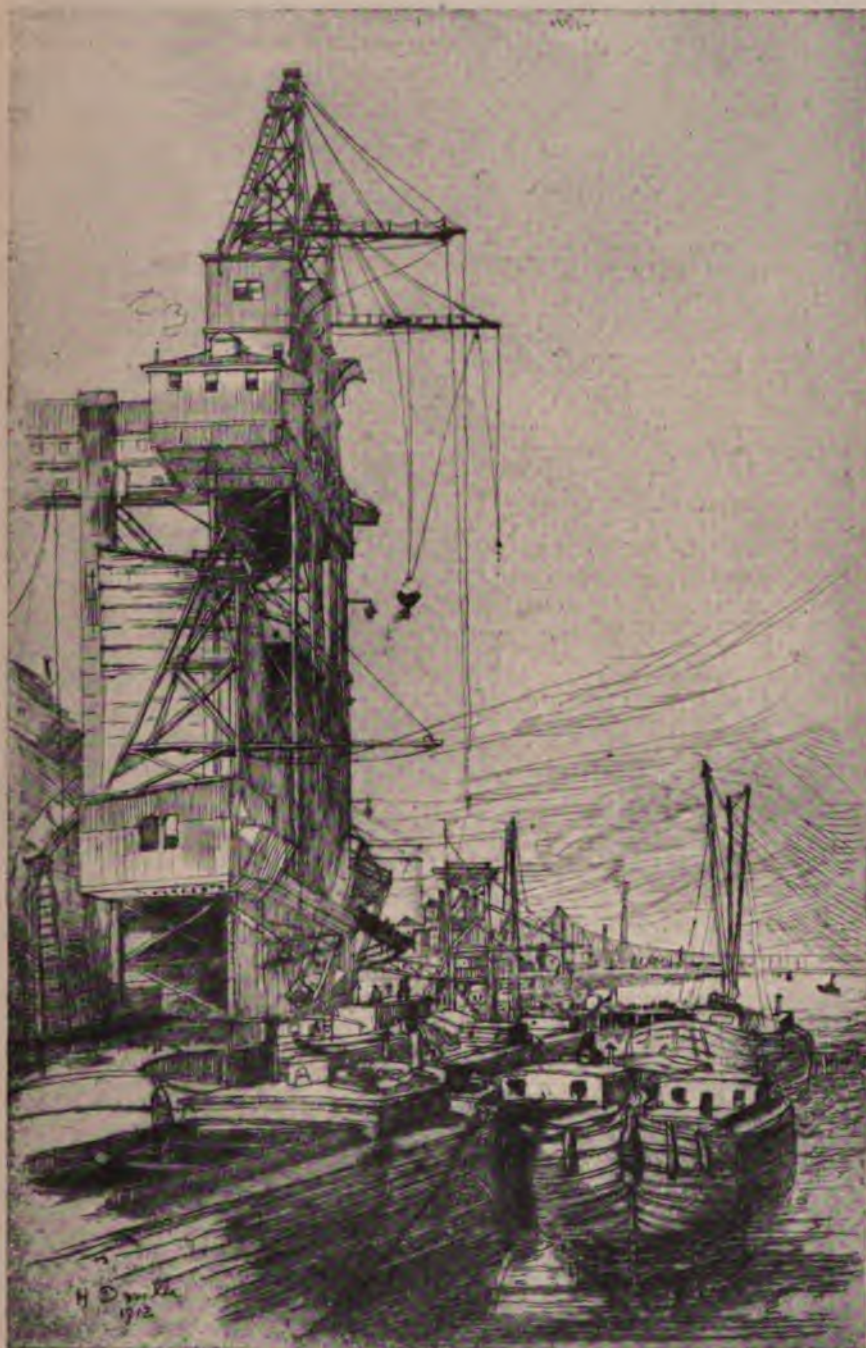
When Noah had finished filling the Ark  
With the animals, two by two,  
He found it was hard to get 'round in the dark  
When night fell over the zoo.

He stopt on claws, he tript on paws,  
He trod on snouts and tails;  
His shins were clawed and he got pawed,  
And deafened by squeaks and wails.

So he lit a pitchy pine knot,  
And, presto! The world was bright.  
For Noah, afloat on the current,  
Had developed the first Ark light.

*John W Pearson*

## The Edison Monthly



*Drawn by H. Deville, 1912*

Coal in the Bunkers, Coal in the Barges and Coal in the Reserve Storage-Yard—a Constant and Limitless Supply Assures the Continuity of Service Which Has Characterized Edison Service for Thirty-five Years



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Motors

#### General Uses

Allis-Chalmers Co—50 Church St  
Bogue Electric Co C J—513-15 W 29th St  
Boker H & Co Inc—101-103 Duane St  
Bell Electric Motor Co—30 Church St  
Burke Elec Co—30 Church St  
C & C Electric & Mfg Co—90 West St  
Century Electric Co—30 Church St  
Colonial Fan & Motor Co—150 Chambers St  
Crocker-Wheeler Co—30 Church St  
Diehl Mfg Co—149 Broadway  
Eck Dynamo & Motor Co—46 W Broadway  
Electro-Dynamic Co The—Ave A Bayonne N J  
Emerson Elec Mfg Co The—50 Church St  
General Electric Co—120 Broadway  
Holtzer-Cabot Electric Co—83 Warren St  
Imperial Elec Co (Watson)—253 Broadway  
Lincoln Electric Co—149 Broadway  
Mechanical Appliance Co—154 Nassau St  
Northwestern Mfg Co—243 Canal St  
Peerless Elec Co—147-9 W 35th St  
Reliance Electric & Engineering Co—90 West St  
Robbins & Myers Co The—30 Church St  
Sprague Electric Works—527 West 34th St  
Triumph Electric Co—114 Liberty St  
Wagner Electric Mfg Co—30 Church St  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

#### Inspection—Maintenance—Repairs

Blackall & Baldwin Co—39 Cortlandt St  
Bogart Co A L—55 Barclay St  
Borne Chas A Co Inc—35-37 Wooster St  
Comstock Associate Co—101 Park Ave  
Conlan Electric Co—43 Murray St  
Elec Machine Tool Co—50 Church St  
Elec Motor Insp & Rep Co—1 Beekman St  
Elec Repair Co—548-550 W 23d St  
General Electric Inspection Co—237 Fulton St  
Globe Elec Cont & Rep Co The—434 Broome St  
Graham Bros Co—585 Hudson St  
Hammill John—55 Ann St  
Harlem Electric Co—6 E 116th St  
Jordon Bros Inc—74 Beekman St  
Kelting Electric Co—119 Pearl St  
Leve Robert E—19 E 32d St  
Maintenance Co The—417 Canal St  
National Electric Co—89 Centre St  
Naumer Elec Co—96 Beekman St  
Naylor & Newton—243 Canal St  
Peerless Engineering Co—147-49 W 35th St  
Russell & Co—56 W 45th St  
Schoenberg R A & Co—906 6th Ave  
See Van Dyck Co—39 Cortlandt St  
Weiderman Geo Elec Co—35-37 Rose St  
Westinghouse Elec & Mfg Co (Repair Shop)—  
467 10th Ave cor 36th St

#### Starters and Controllers

Allen-Bradley Co—50 Church St  
Automatic Switch Co—4 White St  
Curtis-Carhart Co Inc—150 Chambers St  
Cutler-Hammer Mfg Co The—50 Church St  
Electric Controller & Mfg Co The—50 Church St  
General Electric Co—120 Broadway  
Industrial Controller Co—50 Church St  
Rowan Electric Mfg Co—39 Cortlandt St  
Ward Leonard Electric Co—Mount Vernon N Y  
Westinghouse Elec & Mfg Co—165 Broadway

#### Used Motors

Archer & Baldwin—114-118 Liberty St  
Cutter Co F B—50 Church St  
Duzets & Son—546 W 45th St  
Graham Jas A—30 Church St

Holcomb & Co D S Inc—241-3 Canal St  
Klein & Co—208 Centre St  
Oneida Elect Co—313 Canal St

### Office Accessories

Edison Dictating Machine—Orange N J 114  
Liberty St N Y C  
Ensign Elec Calculating Machine—280 B'way  
"The Dictaphone"—83 Chambers St  
The Hoooven, Owens, Rentschler Co—Woolworth  
Building  
"The Millionaire" Elec Cal Mach—1 Madison Ave

### Pumps

Beach-Russ Co—220 Broadway  
Blackall & Baldwin Co—39 Cortlandt St  
Boker H & Co Inc—101-103 Duane St  
D'Olier Centrifugal Pump & Machine Co—503  
Morris Building Philadelphia Pa  
Goulds Mfg Co—16 Murray St  
Holland Machine Co—90 West Broadway  
International Steam Pump Co—115 Broadway  
Lea-Courtenay Co—90 West St  
Platt Iron Works The—50 Church St  
Quimby William E Inc—548 West 23d St  
Rider Ericsson Engine Co—20 Murray St  
Rumsey Pump & Mach Co—75 Warren St  
Twinvolute Pump and Mfg Co—30 Church St  
Western Elec Co—463 West St and 105 W 40th St

### Refrigeration

Automatic Refrigerating Co—50 East 42d St  
Brunswick Refrigerating Co—30 Church St  
De La Vergne Machine Co—Foot of East 138th St  
Electrical Refrigerating Co Inc The—Woolworth  
Building  
Johns-Manville Co H W—41st St & Madison Ave  
Montclair Refrigerating Corp—Woolworth Bldg  
Shipley Const & Sup Co—Columbia St Bklyn N Y  
Triumph Ice Machine Co—30 Church St  
Voss Ice Mach Works—242-252 East 122d St

### Signs

Adams Bagnall Co—114 Liberty St  
B & B Sign Company—347 Fifth Ave  
Bilt-Well Sign System (Elec) 113-115 E 15th St  
Bofinger Bros—146 East 42d St  
City Electric Sign Co Inc The—444 E 13th St  
Commercial Sign Co Inc—440 W 46th St  
Empire Elec Sign Co—162 East 118th St  
Federal Sign System (Electric)—649 W 43d St  
Fricker Frederick—430 11th Ave  
Frink I P—24th St and 10th Ave  
Gude Co O J—220 W 42d St  
Halpern Bros—210 West 26th St  
Manheimer Co The—162 W 34th St  
Martin P J—306 W 53d St  
Mechling Charles J—477 Willis Ave  
Mercantile Adv Co—17 Battery Pl  
Norden Electric Sign Co Inc—311 W 40th St  
Opal Sign Co—254 Tenth Ave  
Pisch Electric Sign Co Inc The—415 W 48th St  
Prismlyte Co The—8 St Felix St Brooklyn  
Snow & Co—531 W 46th St  
Rice Geo H Co Inc—481-87 Sterling Pl Bklyn  
Strauss & Co—209 W 48th St  
Strauss L L—74 W 125th St  
Universal Elec Stage Ltg Co—240 W 50th St  
Wertheimer Sign Co—558 W 36th St

### Sign Flashers

Betts & Betts Corporation—511 W 42d St  
Pheips Mfg Co—729-31 Broadway  
Reynolds Elec Co—1123 Broadway

# The New York Edison Directory

## Manufacturers and Agents (Concluded)

### Supply Dealers

#### Manhattan

Alpha Elec Co Inc—116-118 W 29th St  
Baily Elec Supply Co—62 Vesey St  
Bohn Elec Co C C—820 6th Ave  
Bunnell & Co J H—32 Park Pl  
Burnet Co The—69 South St & 1800 Park Ave  
Central Electrical Supply Co—4 West 16th St  
Crannell, Nugent & Kranzer Inc—110 W 30th St  
Fox Electrical Corporation—119 W 42d St  
Fullerton Electric Co—109-115 W 26th St  
Goetz A E—55 Barclay St  
Hartt & Morison—780 Sixth Ave  
Killoch Co David—57 Murray St  
Latham & Co E B—4 Murray St  
Leahy John J—48 Dey St  
Leveridge Chas W Inc—133 Liberty St  
Manhattan Electrical Supply Co—17 Park Pl  
110 West 42d St, 127 West 125th St  
Metropolitan Elec Products Co—101 W 42d St  
Metropolitan Elec Supply Co—126 W 36th St  
N W Elec Equip Co—35 Vestry St  
Ostrander & Co W R—371 Broadway  
Public Electrical Supply House—62 Essex St  
Royal-Eastern Elec Sup Co—114 W 27th St  
Schoenberg R A & Co—906 6th Ave  
Sibley-Pitman—19-21 West 36th St  
Smith J M & Son—4 E 8th St  
Thomas & Betts Co—105 Hudson St  
Western Elec Co—463 West St and 105 W 40th St

#### Bronx

Bronx Elec Supply Co The—612 Melrose Ave  
Royal Eastern Supply Co The—506 Willis Ave  
Webber Supply Co The—558 Melrose Ave

### Electro-Plating Apparatus and Supplies

Bogue Electric Co C J—513-15 W 29th St  
Green Electric Co W—81 Nassau St  
Munning-Loeb Co—50 Church St

### Specialties

Aladdin Lamp Corporation—52 Vanderbilt Ave  
Alpha Elec Co Inc—116-18 W 29th St  
(Harter Weatherproof Fixtures)  
Bonnell & Co W A—132 Church St  
Bromley-Merseles Mfg Co (Dishwashing Machines)—1328 Broadway  
Brown Elec Co Wm S—3 W 29th St  
Chapin Co Chas E—201 Fulton St  
Corliss Carbon Co—114 Liberty St  
Cutler-Hammer Mfg Co The—50 Church St  
DeVeau Tele Mfg Co—472 18th St Bklyn N Y  
Electric Fountain Co The—348 W 42nd St  
Fox Electrical Corporation—119 W 42d St  
Frantz Premier Distrib Co Inc—119 W 42d St  
Fulton-Bell Co—105 W 40th St  
Guarantee Electric Products Co—47 W 42d St  
Howe Scale Co of N Y The—341 Broadway  
Kirkman Eng Corporation—237 Lafayette St  
Mercantile Adv Co—17 Battery Place  
Organ Arthur—114 Liberty St  
Pittsburgh Electric Spec Co—412 8th Ave  
Shelton Electric Co—30 E 42d St  
Universal Elec Stage Light'g Co—240 W 50th St  
Wallace Novelty Co Inc The—25 E 24th St  
Ward Leonard Electric Co—Mount Vernon N Y  
White J H Mfg Co—111 No 3rd St Brooklyn  
Wicks Electric Co—Cleveland Ohio

### Dishwashing Machines

Phillipson, Emil—110 W 40th St

### Switch and Distributing Boards

Anderson Mfg Co A & J M—135 Broadway  
Automatic Switch Co—4-6 White St

Crouse Hinds Co—30 Church St  
Empire Eng'g & Supply Co—1 Dominick St  
General Electric Co—120 Broadway  
Johns-Manville Co H W—Mad Ave & 41st St  
Krantz Mfg Co—160 Seventh St Bklyn  
Le Baron B Johnson—Madison Ave & 41st St  
Metropolitan Elec Mfg Co—Long Island City  
Metropolitan Engineering Co—35 Vestry St  
Pringle Elec Mfg Co—39 Cortlandt St  
Rall Frederick—19 Park Pl  
Sprague Electric Works—527 W 34th St  
Trumbull Electric Mfg Co—114 Liberty St  
Walker Electric Co—50 Church St  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

### Vacuum Cleaners

Alpha Elec Co Inc—116-18 W 29th St  
Bohn Electric Co C C (Santo)—820 Sixth Ave  
Comstock Associate Co (Sturtevant)—101 Park Avenue  
Duntley Products Sales Co—295 Fifth Ave  
Federal Sign System (Electric)—649 W 43d St  
Fox Electric Corp (Hoover)—119 W 42d St  
Frantz Premier Distrib Co Inc—119 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hartt & Morison—780 Sixth Ave  
Hot Point Electric Heating Co—147 Waverly Pl  
Hurley Machine Co (Thor)—147 W 42nd St  
Innovation Electric Co—585 Hudson St  
Metropolitan Elec Products Co—101 W 42d St  
Muenzen Specialty Co—131 W 42d St  
Ohio Co The—1463 Broadway  
Regina Co—47 West 34th St  
Richmond Radiator Co—1480 Broadway  
Schoenberg R A & Co—906 6th Ave  
Sloane W & J (Invincible) Fifth Ave and 47th St  
Spencer Turbine Cleaner Co—101 Park Ave  
Tucc Company The—1457 Broadway  
Univ Vacuum Cleaner Maint Co—47 W 38th St  
Western Elec Co—463 West St and 105 W 40th St

### Vibrators and Hair Dryers

Alpha Elec Co Inc—116-18 W 29th St  
Barker Metal Furniture Co—255 Canal St  
Fox Electrical Corporation—119 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hartt & Morison—780 Sixth Ave  
Jorgensen John—114 Liberty St  
Kandem Electric Co Inc—39 E 21st St  
Manhattan Electrical Supply Co—17 Park Place  
110 West 42d St, 127 West 125th St  
Sanax Co Inc The—125 E 23d St  
Shelton Elec Co—30 E 42d St  
Sibley-Pitman—19-21 W 36th St  
Western Elec Co—463 West St and 105 W 40th St

### Washing Machines

Brokaw-Eden Mfg Co (The Eden)—119 W 42d St  
Federal Sign System (Electric)—649 W 43d St  
Fox Electric Corp (Eden)—119 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hart Wallace B—(Arora) (Judd) (1900)  
(Cataract)—46 E 41st St  
Home Devices Corp (Modern Home Washers)  
—Bush Terminal Brooklyn  
Hurley Machine Co—147-157 W 42d St  
National Sewing Machine Co—290 Broadway  
Northwestern Electric Equipment Co (Geyser)—  
35 Vestry St  
Sibley-Pitman—19-21 W 36th St  
Wemlinger Co Inc The—40 Whitehall St  
Western Elec Co—105 W 40th St and 463 West St

### Welders

Lincoln Electric Co—149 Broadway  
Welding Materials Co—114 Liberty St  
Westinghouse Electric & Mfg Co—165 Broadway  
Winfield Elec Welding Machine Co—50 Church St



# The New York Edison Directory

## Wiring and Installation Contractors

### West of Broadway and Fifth Avenue

Amsterdam Ave 868—Joseph Rice  
 Amsterdam Ave 943—P D Dunn  
 Amsterdam Ave 984—Sam A Grice & Co  
 Amsterdam Ave 1768—The Lincoln Electric & Repair Shop  
 Amsterdam Ave 1989—Manhattan Electrical Maintenance Company  
 Broadway 212—Charles S Borger  
 Broadway 335—Park Sullinger  
 Broadway 853—J Menkes  
 Broadway 1123—William J Shore  
 Broadway 1133—Van Wagoner-Linn Cons Co  
 Broadway 1170—Alliance Electric Co Inc  
 Broadway 1270—Croker National Fire Prevention Engineering Company  
 Broadway 1402—Gagen & Butler  
 Broadway 1929—F W Astarita  
 Broadway 1931—Bull-Duroy Electric Co  
 Broadway 1960—E May Inc  
 Broadway 2304—C E MacCabe  
 Broadway 2304—Frank B Widmayer Co  
 Broadway 2382—Howard S Beidleman  
 Canal St 313—Oneida Electric Co  
 Canal St 417—G E Engineering Co  
 Canal St 417—The Maintenance Co  
 Christopher St 41—W Buch  
 Church St 30—L K Comstock & Co  
 Church St 50—William Braun  
 Columbus Ave 220—Thomas F Carr  
 Columbus Ave 348—H Blumenstetter  
 Columbus Ave 517—Samuel Millinger  
 Columbus Ave 549—Hoffman & Elias  
 Columbus Ave 847—Mariposa Electric Co  
 Cortlandt St 26—Cleveland & Ryan  
 Cortlandt St 39—Blackall & Baldwin Co  
 Cortlandt St 84—Bleyle Elec Co  
 Duane St 172—Jas F Hughes Co  
 Eighth Ave 461—A J Buschmann Co  
 Eighth Ave 461—Edward B Stott & Co  
 Eighth Ave 766—H Lauer & Co  
 Fifth Ave 75—H M Walter  
 Fifth Ave 320—J P Hall-Smith Co  
 Fifth Ave 503—Alfred U Keedwell & Co  
 Fulton St 237—General Electric Inspection Co  
 Greenwich St 183—Thomas & Johnson  
 Greenwich St 255—Garret M Ross  
 Hudson St 585—S Edw Eaton & Co  
 Liberty St 120—S Arthur Brown & Co  
 Liberty St 120—Watson-Flagg Engineering Co  
 St Nicholas Ave 1048—George E Ryan Co Inc  
 Sixth Ave 440—A Goldman & Co Inc  
 Sixth Ave 617—Zenker & Siems  
 Sixth Ave 632—John J Finn  
 Sixth Ave 819—Thomas Hindley & Son  
 Sixth Ave 820—C C Bohn Electric Co  
 Sixth Ave 882—P McGunnigle & Son  
 Sixth Ave 906—R A Schoenberg & Co  
 Sixth Ave 1009—John T Whitehead & Son  
 Seventh Ave 360—Louis Freund  
 Seventh Ave 422—Franklin Elec Co  
 Seventh Ave 2286—Nathan Zolinsky

Tenth Ave 466—George E Valley & Bros  
 Tenth Ave 578—Chas F Dunker  
 Thames St 27—McLeod Ward & Co  
 Varick St 143-145—H C Griffin & Co Inc  
 Vesey St 53—F A Frey  
 West Broadway 170—J S Bihin  
 West Broadway 490—X L Machine & Elec Co  
 West End Ave 165—F W Astarita  
 West St 116—Knickerbocker Electric Co  
 West 12th St 101—C S Harris  
 West 14th St 249—Kenehan & Clancy  
 West 17th St 108—Manhattan Elec Cont Co  
 West 17th St 142—Harry A Hanft  
 West 26th St 101—Pruver Electric Co  
 West 30th St 114—Tucker Elec Construction Co  
 West 31st St 109—Jandous Elec Equip Co Inc  
 West 33d St 221—E-J Elec Installation Co  
 West 34th St 20—Harry Alexander Inc  
 West 34th St 110—Nimis & Nimis Inc  
 West 35th St 147-49—N Y Elec Installation Co  
 West 39th St 42—J Fischer Electric Co  
 West 40th St 105—Lord Electric Co  
 West 40th St 337—William W Ritchie  
 West 40th St 417—Manhattan Engineering Co  
 West 40th St 458—George L Ford  
 West 42d St 25—William D Munro  
 West 42d St 112—Oberg Blumberg & Bleyer  
 West 42d St 121—Conduit Wiring Co  
 West 42d St 229—M Schweiger & Co Inc  
 West 42d St 314—A & A Electric Co  
 West 45th St 56—Russell & Co  
 West 45th St 100—Robert Bernecker  
 West 48th St 209-13—Strauss & Company Inc  
 West 53d St 207—Wm A Brown  
 West 53d St 243—W E Nichols  
 West 59th St 401—John T Williams Co  
 West 72d St 176—Kaufman & Burkert  
 West 83d St 121—C A Christesen  
 West 99th St 146—John A Marcato Co  
 West 100th St 204—L Koehler  
 West 116th St 138—P Simpson  
 West 116th St 227—Lewis S Davis  
 West 125th St 71-75—H Kaufman  
 West 125th St 74—Lawrence L Strauss  
 West 125th St 215—M J Heller Elect Co  
 West 125th St 247—Planet Elec & Sup Co  
 Wooster St 12—Durbrow & Hearne Mfg Co

### East of Broadway and Fifth Avenue

Beekman St 74—Jordan Bros Const Co  
 Bible House 78—Thos C Miller  
 Beaver St 42—Hanover Elect Co  
 Broome St 114—B H Weinberg  
 Broome St 434—The Globe Electric Contracting & Repairing Company  
 Cedar St 16—Wm Truswell & Son  
 Chrystie St 155—A Fox  
 Dover St 8—Hazaver Electric Co Inc  
 East Houston St 93—I Berkowitz  
 East 3d St 48—B Ackerman Co  
 East 3d St 136—H A Schreiber  
 East 5th St 416—Frank Bloom  
 East 8th St 4—J M Smith & Son  
 East 8th St 48—American Pressing Iron Co  
 East 13th St 2—B W Sandbach & Co

# The New York Edison Directory

## Department Stores which Sell Electric Appliances

Adams-Flanigan Co—Westchester & Third Aves  
Bronx Basement  
Barnett Bros—Columbus Ave & 74th St  
Basement  
\*Bloomingdale Bros—59th St & Third Ave  
Basement  
John Daniell Sons—759 Broadway Basement  
\*Gimbel Bros—6th Ave & 33d St Fifth Floor  
\*J B Greenhut & Co—6th Ave & 18th St  
Basement  
H C F Koch & Co—132 W 125th St Basement  
Lewis & Conger—Sixth Ave & 45th St First Floor

Liggett-Riker-Hegeman Drug Stores  
\*Lord & Taylor—5th Ave & 38th St Fifth Floor  
\*James McCreery—5 W 34th St Sixth Floor  
\*R H Macy & Co—Broadway & 35th St  
Basement  
Rothenberg & Co—34 W 14th St Basement  
Stern Bros—41 W 42d St Fourth Floor  
\*John Wanamaker—Broadway & 10th St  
Seventh Floor

\*These stores maintain special electrical departments where wide varieties of electric household appliances are always displayed.

## Manufacturers and Agents

### Arc Lamps

Adams Bagnall Co—114 Liberty St  
Bogue Electric Co C J—513-15 W 29th St  
Cooper-Hewitt Elec Co—730 Grand Street  
Hoboken N J  
General Electric Co—120 Broadway  
General Illuminating Co—1604 Broadway  
Hallberg J H—38 E 23d St  
Kandem Electric Co Inc—58 Reade St  
Stave Electrical Co—131 Hudson St  
Western Elec Co—463 West St and 105 West  
40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wohl M J & Co—211 Fulton St Brooklyn N Y

### Mercury Vapor Lamps

Cooper-Hewitt Elec Co—730 Grand Street Ho-  
boken N J  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

### Automobiles

C—Commercial I—Industrial P—Passenger  
Anderson Electric Car Co of N Y (Detroit Elec-  
tric)—Central Park West at 62d St (C & P)  
Atlantic Elec Vehicle Co—52 Vanderbilt Ave (C)  
Automatic Transportation Co—258 B'way (I)  
Baker R & L New York Corporation The—  
Central Park West at 62d St (P)  
Buda Co of Chicago—30 Church St (I)  
Comm'l Truck Co of America—30 E 42d St (C)  
Couple Gear Co (Clarence L Smith Co Agents)  
—544 W 30th St (C)  
Cowan Truck Co—114 Liberty St (I)  
Electric Automobile Sales Corp—Times Bldg (C)  
Electro Coach Corp—30 Church St (Busses)  
Elwell-Parker Electric Co (Lucian C & G W  
Brown Agts)—50 Church St (I)  
Field Omnibus Co—149 Broadway (Busses)  
General Vehicle Co—30 East 42d St (C) (I)  
Healey & Co—Broadway and 51st St (P)  
Hoagland-Thayer Inc—383 Halsey Street  
Newark N J (I)  
Hunt Co C W Inc—61 Broadway (I)  
Lansden Co Inc The—Flatbush & Nostrand  
Aves Brooklyn (C)  
Lansing Co—288-9 West St (I)  
Mercury Mfg Co—(Truck & Tractor Co Agents)  
25 Church St  
Ohio Electric Car Co (Robt W Schuette Agent)  
—236 West 54th St (P)  
Orenstein-Arthur Koppel Co—30 Church St (I)  
Walker Vehicle Co—Grand Central Terminal  
Room 3709 (C)  
Ward Motor Vehicle Co—Mt Vernon N Y (C)

### Charging Apparatus

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—Belleville N J

Electric Products Co The—30 E 42d St  
General Electric Co—120 Broadway  
Industrial Controller Co—50 Church St  
Lincoln Electric Co—149 Broadway  
Northwestern Electric Co The—1457-63 B'way  
Wagner Electric Mfg Co—30 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Elec & Mfg Co—165 Broadway

### Charging Apparatus for Ignition, Starting and Lighting Batteries

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—46 West Broadway  
Edison Thomas A Inc—141 Lakeside Ave  
Orange N J  
Electric Products Co—30 E 42d St  
General Electric Co—120 Broadway  
Lincoln Electric Co—149 Broadway  
Robbins & Myers Co—30 Church St  
Wagner Electric Mfg Co—50 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Electric & Manufacturing Co—  
165 Broadway

### Electric Garages

Acker Merrill & Condit Co—523 W 46th St (C)  
Exide Battery Depots Inc  
East Side Garage—141 E 25th St (C)  
North Side Garage—West End Ave & 64th St (C)  
West Side Garage 527-41 W 23d St (C)  
International Motor Co—West End Ave & 63d  
St (C)  
No Moore St Garage—56-62 No Moore St (C)  
Piercy Contracting Co—422 W 15th St (C)  
Proud Elec Co T I—114 W 54th St (P)  
The Electric Garage—Central Park West & 62d  
St (P)  
The 474 West 130th Street Garage Inc—474 W  
130th St (C)  
Wright's Garage Inc—600 W 158th St (P)

### Mechanical and Battery Parts

Anderson Electric Car Co—Central Park West  
at 62d St  
Anderson Mfg Co Albert & J M—135 Broadway  
Baker R & L New York Corporation The—  
Central Park West at 62d St  
Edison Storage Battery Co—204-206 W 76th St  
Electric Garage—Central Park West & 62d St  
Electric Storage Battery Co The—100 B'way  
Exide Battery Depots Inc—West End Ave and  
64th St  
Gassaway F S Inc—212 E 54th St  
General Lead Batteries Co—1790 Broadway  
Gould Storage Battery Co The—30 E 42 St  
Guarantee Electric Products Co—47 W 42d St  
Phila Storage Battery Co—American Building  
Broadway and 58th St  
Storage Battery Supply Co—239 East 27th St



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Mechanical and Battery Parts (Concluded)

Walker Vehicle Co—531 W 46th St  
Willard Storage Bat Co The—228-30 W 58th St

### Buffers—Polishers

Bogue Electric Co C J—513-15 W 29th St  
Fort Wayne Electric Works of the General Electric Co—30 Church St  
General Electric Co—120 Broadway  
Green Electric Co The W—81 Nassau St  
Holtzer-Cabot Electric Co—83 Warren St  
Munning-Loeb Co—Canal & Sullivan Streets  
Robbins & Myers Co The—30 Church St  
Westinghouse Elec & Mfg Co—165 Broadway

### Clocks—Time Stamps and Recorders

Betts & Betts Corporation—511-13 W 42d St  
Holtzer-Cabot Electric Co—83 Warren St  
Howard Electric Clock Co—Maiden Lane & William St  
Walker Bros & Haviland—50 Church St

### Coffee Mills

Boker H & Co Inc—101-103 Duane St  
Canton Electric Cut Co—11 E 125th St  
Coles Mfg Co—419 Long Beach Bldg  
Deer Co A J—55 West 63d St  
Hobart Mfg Co Inc The—24 East 21st St  
Howe Scale Co of N Y The—341 Broadway  
Jacobs Bros Co Inc—78 Warren St

### Drills and Grinders (Portable)

Chicago Pneumatic Tool Co—52 Vanderbilt Ave  
Cincinnati Electrical Tool Co—50 Church St  
Electro-Magnetic Tool Co—426 Broome St  
Hisey Wolf Machine Co—50 Church St  
Standard Electric Tool Co—30 Church St  
United States Electrical Co—50 Church St  
Van Dorn Electrical Tool Co—30 Church St

### Electro-Therapeutic and Dental Apparatus

American Sterilizer Co—Erie Pa  
American X-Ray Equip Co—401-405 E 31st St  
Edmonds Walter S—134 Congress St Boston Mass  
General Acoustic Co—Acousticon for the Deaf 220 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hanovia Chemical & Mfg Co—30 Church St  
Harper Oriphone Co (Instruments for the Deaf) —303-305 Fifth Avenue  
Hospital Supply Co The—53-55 Fifth Avenue  
Hotpoint Elec Heating Co—147 Waverly Pl  
Hughes Co The J W—110 E 23d St  
Johns-Manville Co H W—41st St & Madison Ave  
Kny-Scheerer Co The—404-410 West 27th St  
MacAlaster Wiggin Co—66 Broadway Cambridge Mass  
Meyrowitz E B Inc—237 Fifth Ave  
Metropolitan Eng Co—35 Vestry St  
Neel-Armstrong Co—29 W 34th St  
Pelton & Crane Co—Detroit Michigan  
Pittsburgh Electric Specialties Co—412 Eighth Ave (lamps only)  
Prometheus Elec Co The—232 E 43d St  
Ritter Dental Mfg Co—Fifth Ave Building  
Sanax Co Inc The—125 E 23d St

Shelton Elec Co—30 W 42d St  
Simplex Electric Heating Co—120 W 32d St  
Sorensen C N Co Inc—177 E 87th St  
Tiemann Co George—107 E 28th St 107 Park Row  
Trenaman Dental Mfg Co—107 W 25th St  
Victor Electric Co—110 E 23d St  
Vioray Mfg Co—915 Whitlock Ave Bronx  
Waite & Bartlett Mfg Co—252-258 W 29th St  
Wappler Elec Mfg Co Inc—173 E 87th St  
Westinghouse Electric & Mfg Co—165 B'way  
White Dental Mfg Co S S—5 Union Square  
Williams Roger—120 W 32d St  
Wolff Co Wm F—501 W 145th St

### Elevators—Dumbwaiters

American Elevator Co—117 Cedar St  
Burdett-Rowntree Mfg Co—119 W 40th St  
Burwak Elevator Co—216 Fulton St  
Dowdall Chas E Inc—152 W Broadway  
General Elevator Co—29 Broadway  
Gurney Elevator Co—62-64 W 45th St  
Jordan Bros Inc—74 Beekman St  
Maintenance Co The—417-421 Canal St  
National Elevator Co—62-64 W 45th St  
New York Elevator Co—50 Grand St  
Otis Elevator Co—11th Ave and 26th St  
Reedy Elevator Co—202 Ninth Ave  
Roberts Elevator Co Jas H—430 W Broadway  
Sedgwick Machine Works—128 Liberty St  
See Elec Elevator Co A B—220 Broadway  
Warner Elev Mfg Co—113 Warren St  
Warsaw Elevator Co—216 Fulton St  
Wheeler McDowell Elev Co—417 Canal St

### Fans, Blowers and Air Compressors

Adams Bagnall Co—114 Liberty St  
Allis-Chalmers Co—50 Church St  
American Blower Co—141 Broadway  
Beach-Russ Co—220 Broadway  
Boker H & Co Inc—101-103 Duane St  
Brunner Mfg Co—30 Church St  
Century Electric Co—30 Church St  
Clayton Air Compressor Works—115 Broadway  
Curtis & Carhart Inc—150 Chambers St  
Curtis Pneumatic Machinery Co—30 Church St  
Diehl Mfg Co—149 Broadway  
Eck Dynamo & Motor Co—46 W Broadway  
Federal Sign System (Electric)—649 W 43d St  
Fox Electrical Corporation—119 W 42d St  
Garner Ventilating Co—136 Liberty St  
General Electric Co—120 Broadway  
Gerdes Theo R N—123 Liberty St  
Hunter Fan & Motor Co—114-118 Liberty St  
Ilg Elec Vent Co—13 Park Row  
Kandem Electric Co Inc—49 E 21st St  
Kinetic Engineering Co—41 Park Row  
Koithan & Pryor—39 Cortlandt St  
Kragh C W—184 Hudson Ave  
Laidlaw-Dunn-Gordon Co—115 Broadway  
Manhattan Electrical Supply Co—17 Park Place 110 West 42d St, 127 West 125th St  
National Brake & Elec Co—165 Broadway  
Robbins & Myers Co The—30 Church St  
Schoenberg R A & Co—906 6th Ave  
Smucker Arthur C—30 Church St  
Sorensen Co Inc C M—177 East 87th St  
Sprague Electric Works—527 W 34th St  
Strauss L L (For Rent)—74 W 125th St



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Fans, Blowers, Air Compressors (Concluded)

Sturtevant B F Co—50 Church St  
Typhoon Fan Company—1544 Broadway  
Western Elec Co—463 West St & 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Westinghouse Traction Brake Co—165 B'way  
Wing L J Mfg Co—352-362 W 13th St

### Fire Alarm Systems (Interior)

Auto Call Co—30 Church St  
Automatic Fire Alarm Co—416 Broadway  
Edwards Co—Exterior St Bronx  
Leveridge Chas W Inc—133 Liberty St  
Metropolitan Elec Protective Co—130 W 26th St  
Ostrander & Co W R—22 Dey St  
U S E M Co—221 West 33rd St

### Fixtures and Portables

Bayley & Sons Inc—101 Park Ave  
Benjamin Electric Mfg Co—114 Liberty St  
Black & Boyd—17 E 47th St  
Caldwell Co Edward F—36-40 West 15th St  
Dale Lighting Fixture Co Inc—107-9 W 13th St  
Falkenbach Mfg Co The—159 E 54th St  
Federal Sign System (Electric)—649 W 43rd St  
Findlay Mfg Co Robt—28 Warren St  
Fox Electrical Corporation—119 W 42d St  
Frink T P—24th St and 10th Ave  
Gleason Mfg Co E P—37 Murray St  
Goetz A E—55 Barclay St  
Harlem Gas & Elec Fix Co—157-59 E 128th St  
Heather Co The R C—19-21 W 36th St  
Kandem Electric Co Inc—49 E 21st St  
Lighting Studios Co—220 W 42d St  
Livingston & Co J Inc—70 East 45th St  
McFaddin & Co H G—38 Warren St  
McHugh & Son Joseph P—9 West 42d St  
Mayer & Co Leon—1304 Boston Road  
Metropolitan Elec Supply Co—126 W 36th St  
Miller & Co Edward—68-70 Park Place  
Mitchell Vance Co The—294 Madison Ave  
Morris Iron Works Elmer P—136 Liberty St  
National X-Ray Reflector Co—21 W 46th St  
N Y Gas & Elec Appliance Co—569-571 B'way  
Parker Co The Chas—32 Warren St  
Pittsburgh Lamp Brass & Glass Co—35 W 23d St  
Roeser & Heidelberger Inc—54 W 37th St  
Schoenberg R A & Co—906 6th Ave  
Shapiro & Aronson—20 Warren St  
Sibley & Pitman—19-21 W 36th St  
Silvestro C—4149 Park Ave Bronx  
Simes Co The—20 Rose St  
Sommer Lighting Fixture Co Inc—386 Second Ave  
Standard Lighting Fixture Co—61 Warburton Ave Yonkers N Y  
Sterling Bronze Co—18 East 40th St  
"Vase-Kraft" Studio—333 Fourth Avenue  
Wahle, Phillips Co—Park Ave & 40th St  
Walter G E—157 East 44th St  
Western Elec Co—463 West St and 105 W 40th St

### Street Fixtures

Adams Bagnall Co—114 Liberty St  
Central Foundry Co—90 West St  
Fox & Co John—253 Broadway  
General Electric Co—120 Broadway  
Morris Iron Works Inc E P—136 Liberty St  
Mott Iron Works J L—118 Fifth Ave  
Westinghouse Electric & Mfg Co—165 B'way

### Globes—Reflectors

Adams Bagnall Co—114 Liberty St  
Dealing William—1 Hudson St  
Fox Elec Corp The—119 W 42d St  
Frink I P—24th St & 10th Ave  
Gillender & Sons Inc—19 Madison Ave  
Gleason-Tiebout Glass Co—200 Fifth Ave  
Haskins Glass Co—98 Park Pl  
Holophane Glass Co Inc—340 Madison Ave  
Hubbell Harvey Inc—30 East 42d St  
"Ivanhoe-Regent Works" of the General Elect Company—105 W 40th St  
Jefferson Glass Co—220 W 42d St  
Lighting Studios Co—220 W 42d St  
Macbeth-Evans Glass Co—143 Madison Ave  
Morgan & Sons John—61 East 9th St  
Northwood Co H—19 Madison Ave  
Organ Arthur—114 Liberty St  
Phoenix Glass Co—230 Fifth Ave  
Harry Pickhardt—98 Park Place  
Pittsb'g Lamp Brass & Glass Co—35-37 W 23d St  
Straight Filament Lamp Co—42 E 23d St  
Weeks Nelson—214 State St Brooklyn N Y  
Wilkinson Co—93 Underhill Ave Brooklyn N Y

### Heating and Cooking

American Elec Heater Co—Detroit, Michigan  
Bohn Elec Co C C—820 6th Ave  
Boker H & Co Inc—101-103 Duane St  
Cutler-Hammer Mfg Co The—144th St and Southern Boulevard  
Dover Mfg Co—30 Church St  
Federal Sign System (Electric)—649 W 43d St  
Fox Electrical Corporation—119 W 42d St  
General Electric Co—120 Broadway  
Guarantee Electric Products Co—47 W 42d St  
Hotpoint Electric Heating Co—147 Waverly Pl  
Hughes Electric Heating Co—Chicago Ill  
Johns-Manville Co The H W (Heating Pads) 41st St and Madison Ave  
Landers, Frary & Clark Messrs—200 Fifth Ave  
Manhattan Electrical Supply Co—17 Park Place, 110 West 42d St, 127 West 125th St  
Metropolitan Elec Prod Co Inc—101 W 42d St  
National Elec Utilities Corp—103 Park Ave  
Pelouze Mfg Co—32 Park Place  
Phelps Mfg Co—2 Astor Place  
Pittsburgh Elec Specialties Co—412 8th Ave  
Prometheus Electric Co The—232 E 43d St  
Reimers Mfg Co—130 Church St  
Schoenberg R A & Co—906 6th Ave  
Sibley-Pitman Elec Corp—19-21 W 36th St  
Simplex Electric Heating Co—120 W 32d St  
Western Elec Co—463 West St and 105 W 40th St  
Wicks Electric Co—Cleveland Ohio  
Williams Roger—120 West 32d St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wood Electric Co C D—441 Broadway

### Ironing Machines

American Ironing Machine Co—46 E 41st St  
Bergbom & Roberg—46 E 41st St  
Fox Elec Corporation (Simplex)—119 W 42d St  
Wallace B Hart (Roma)—46 E 41st St  
Hurley Machine Co—147 W 42d St

### Horse Clippers

Gillette Clipping Machine Co—110 W 32d St

### Low Voltage Direct Current Bell Ringers

U S E M Co—301 West 37th St



# The New York Edison Company

## General Offices

### Irving Place & 15th St

*Telephone Stuyvesant 5600*

BRANCH OFFICES	TELEPHONE
424 Broadway	Canal 8600
126 Delancey St	Orchard 1960
10 Irving Place	Stuyvesant 5600
124 West 42d St	Bryant 5262
151 East 86th St	Lenox 7780
15 East 125th St	Harlem 4020
362 East 149th St	Melrose 9900

All showrooms open until midnight

**EMERGENCY NIGHT AND SUNDAY  
CALL—FARRAGUT 3000**

### *Territory Served by the Various Supply Offices*

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Sts, west of the Bowery and south of Catharine St

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



*"At Your  
Service"*





VOLUME X

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## The Edison Monthly

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N F BRADY, President  
JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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Forty-two private plants with a total capacity of nearly nine thousand horsepower closed down during the first seven months of 1917 bear eloquent testimony to the inefficiency of this means of providing electrical energy for big building requirements.

Add to this the fact that approximately 98 percent of the new buildings erected during the same period installed Central Station service at the very start and the argument becomes unanswerable.



With the whole effort of the country directed toward a conservation of material resources, preventing coal waste becomes not only a patriotic duty but one which bears its material reward in the shape of a substantial reduction in expense of building management.

In small plants, for example, only about 5 or 6 percent of the potential energy of coal becomes of service. In large plants approximately 20 percent is converted into useful energy. It is this inefficient burning of coal in small plants that causes a waste of 150 million tons a year according to the statistics of the Department of the Interior.

Obviously the one logical way to

reduce this great waste is to concentrate the consumption of fuel in the large, efficiently operated plants, which in turn can supply electrical energy to the smaller individual establishments in their vicinities.



While the canning of food in so many homes will do much toward preventing the waste of surplus crops, it is only by the prompt delivery of fruits and vegetables that such canning is possible. That is, the farm products must reach the kitchen in a firm and fresh condition, and this can only be accomplished when the different stages of the journey are made without undue delay.

The railroads with their refrigerator cars and arrangement of train schedules do their part in bringing the goods to the freight stations. From this point to the consumer is apt to occur the greatest delay and consequently the greatest waste. Obviously, any means of overcoming this delay becomes a factor for waste prevention.



As related elsewhere in this issue, many of the dealers are finding the electric truck a thoroughly dependable and expeditious means of bringing their incoming produce from the station to the warehouse and of making the delivery to the retail merchant. Regardless of the season, they find it entirely suited to their requirements. In Spring and Fall it competes with the horse when the horse is supposed to be at his best. In Winter, when horses are slipping and falling on icy pavements, and in Summer, when so



## The Edison Monthly

many hundreds of animals succumb to the heat, the electric covers its route on schedule time.

And not only does it prevent an economic loss in the prevention of waste but it has another advantage for its owner: it is far less expensive to maintain than other methods of delivery, and in that it adds considerably to the year's profits.



As time goes, thirty-five years is a short span. Yet in the life of New York City it represents the period which has seen greater development than any other.

If one questions this, the proof is in the records that picture the city of the early eighties. Puffing steam engines on elevated tracks, toiling horse-cars on crowded streets, business buildings of not more than four or five stories, indifferently lighted offices, stores and factories, slow ferry-boats on the rivers, dirty sections of the city where the factories poured out their clouds of smoke; in a word, a city without any of the advantages and improvements which have become possible through development in electrical science.

In 1882 electricity was known commercially in only two ways: through its use in the operation of communication systems and for street lighting by means of arc lamps. Today the enumeration of electrical applications is an all but impossible task. It is safe to say, though, that there is no industry which is entirely independent of the product of the dynamo.



The period that followed the opening of the first commercial Central

Station in this country has witnessed the passing of the steam locomotive from city transportation and the beginning of electric train-hauling through the open country, the development of the electric elevator and the skyscraper which the elevator has made possible, the passing of the horse-car from our city streets and the beginning of the end of the horse for all forms of urban hauling, the development of the underground railroad with its electric cars and the opening of hitherto inaccessible parts of the surrounding suburbs, a brilliance of street illumination almost undreamed of, the passing of industry's smoke-stack and the introduction of limestone front factories, and a remarkable change of housekeeping methods which has introduced the same degree of scientific efficiency in the home that has long prevailed in business management.

In the contemplation of a long and always incomplete record of achievement it is not strange that the thirty-fifth anniversary of the event which was the beginning of it all should be the occasion of an unusual celebration.



Picturing the historical aspects of this thirty-five-year period, the Electrical Exposition of 1917 will form the background for commemorative exercises which will culminate in the middle of October with the placing of a memorial tablet on the building now occupying the site in New York of the country's first electric central station.

Appropriate exercises are to be held under the auspices of the American Scenic and Historic Preservation Society and The New York Edison Company.



# The Edison Monthly

*An Anniversary Song of The New York Edison Company*

## The Flying Goal

They say I have achieved—and well they may;  
They honor me upon my natal day;  
They trace my progress through the fleeting years;  
They brand me master of my dreams and fears;  
Yet I am ill content; with vibrant soul,  
On, on I press to gain the flying goal!

Ah, backward I have looked; I've seen the glow  
Upon a shield that proudly now they show;  
I've marked my record writ in human lives;  
I've known the massive marts where Genius thrives;  
Yet to the future I must pay my toll:  
The long years call me to my waiting goal!

I've built my patronage with lavish hand,  
Vast shrines of Service fit for any land;  
I have created works of Use and Art,  
I knew their Age and swift became a part;  
This feasting day is but a brief parole:  
Tomorrow's eyes must rest upon the goal!

Their songs of praise make Struggle doubly sweet,  
My hour of Victory is now complete;  
I hail the Past with spirit unashamed;  
Among the faithful ones I'm justly named;  
Yet I am ill content, with eager soul  
I glory in Tomorrow—and the goal!

*Roscoe Gilmore Stott*

# Thirty Five Years "At Your Service"

**M**OST of us, unfortunately, are best acquainted with dreams that do not come true. We, that is, whose dreams are the ordinary dreams, the realization of which would probably mean little to the world at large. But there are dreams that do come true, to the glory of the one who dreams them and to the everlasting benefit of the world. These are the dreams of genius, sprung from great minds concerned with great ends.

It was such a dream, the fruit of genius and labor, that saw its first step toward fulfilment in the year 1882. The dream was of a mighty center of energy, whence should flow, its path invisible under the ground, a force to metamorphose a city. The realization of the dream began in a building on Pearl street sheltering six electric dynamos and forming the first Central Station in the world sending electric current underground

to those who should benefit by it; and on the wall of the building which now occupies the site of the original station there is to be placed a fine bronze tablet whose inscription tells the story of this historic event.

*Inscription on the tablet to be erected on the site of the old generating station:*

In a Building on this Site an Electric Plant Supplying the First Edison Underground Central Station System in this Country and Forming the Origin of New York's Present Electrical System Began Operation on September 4 1882 according to Plans Conceived and Executed by Thomas Alva Edison.

To Commemorate an Epoch-making Event, this Tablet is Erected by

THE AMERICAN SCENIC AND HISTORIC PRESERVATION SOCIETY

THE NEW YORK EDISON COMPANY

Thus it is commemorated by the American Scenic and Historic Preservation Society.

This station and the electrical system it supplied was the consummation of years of thought and planning, of faith in the face of obstacles, of fidelity to a vision. For

there were others besides Edison who, without his genius, none the less shared his vision, the men who furnished the capital to carry out the dream of this first Central Station and those who labored with him in working out his plans. And, indeed, it required vision. The suggestion to supply through underground channels this new means of lighting and to make available a light which would be so far superior to any other form of



## The Edison Monthly

illumination met with skepticism and opposition. But, sharing his dream and fired by his vision, these men supplied the means to transform the model in the laboratory at Menlo Park into a reality. In giving tribute to him whose genius saw the vision, they should be remembered who made it possible for the vision to become a fact.

But when on September 4, 1882, electric current generated by the six 125-horsepower Jumbo dynamos, which today would seem so small, was first turned on at 257 Pearl street, probably even those men with all their confidence and prescience never conceived how the force to whose generation this plant was devoted was destined to revolutionize the life of the city. Save Edison; for even before he perfected the incandescent lamps, which on that afternoon blazed out four hundred strong at the turn of the station switch, he had invented a

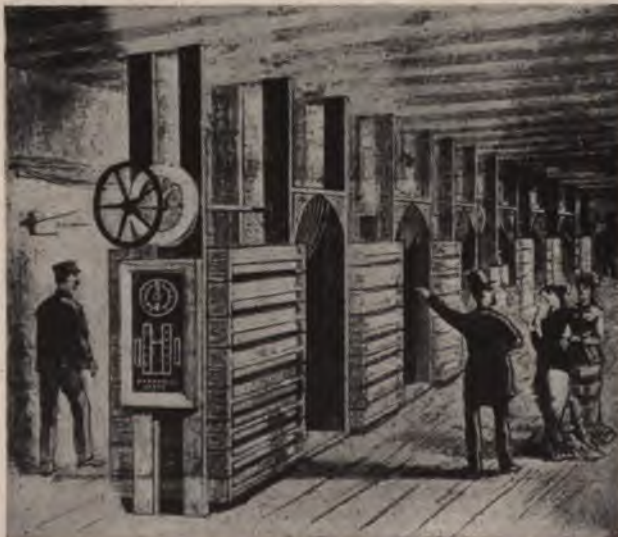


The Battery of a Thousand Lamps Was an Important Part of the Pearl Street Equipment

motor modeled on the dynamo which he himself had also designed. And the motor, only two years after the station was opened, found use in electrically driven fans in downtown offices. In 1888 some printing presses on Pearl street were operated by the strangely

successful application of electricity and this marked the real entrance of the Pearl street station into the industrial life of New York and its people.

Step by step, almost imperceptibly, yet rapidly, electricity has since entered into industry and become indispensable. The huge factories draw from the Central Station the power that gives life to their ponderous machinery; man labor is conserved and production



Primitive Regulating Apparatus Used at the Pearl Street Station in 1882



## The Edison Monthly

is increased by the force which drives huge engines to their work.

Where electricity has once entered in, man power is hopelessly inadequate by comparison. The system planned by Edison and developed by enthusiastic followers has grown to a proportion astonishing and overwhelming.

Today, far over on the eastern side of New York where a river filled with craft flows smoothly by on the one side and where on the other the streets lead off to the crowded city, two huge piles dominate the neighborhood. The great bulks of buildings tower in the air in unsurpassed solidity. Through all goes a prodigious vibration, a constant whirr of mighty turbines and engines. In the interior are magnificent masses of iron and steel whose revolutions, fed by mountains of coal poured into fiery furnaces, create the force that makes the wheels of progress go around. Ceaselessly, seeming to disdain the rest of the universe, they appear destined to go on forever, a mechanical universe within themselves.

Here is the final realization of the Dream; the consummate result of thirty-five years of growth and achievement. The great Waterside Stations of The New

York Edison Company are the living embodiment of a Dream come true!

But to turn again to fact and the various steps through which this miracle of production has been attained—the Pearl Street station operated with its original equipment for two years, while Edison's light increased in efficiency and popularity. Then to the original dynamos of the station two more were added in 1884. But even this proved insufficient and a hundred applications for service had to be held until the plant should be again enlarged for their accommodation.

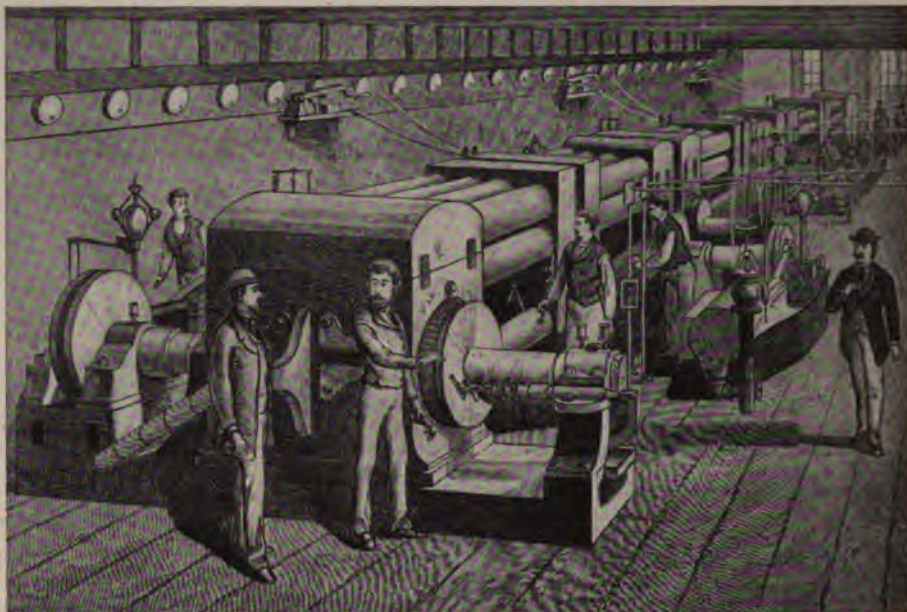
The extension of service into new districts and the building of sub-



Not Until Edison's Underground System Had Proved a Success Were the Telephone and Telegraph Poles Removed. Broadway and John St in 1890



## The Edison Monthly



Six Bi-polar Generators—Called Jumbos—of 125 Horsepower Each, Constituted the Equipment of New York's First Central Station. In the Waterside Station of Today There Is a Unit of More than 50,000 Horsepower

stations led finally in 1890 to the purchase of a site for a new generating station on Duane and Pearl Streets. Current was turned on here in 1891 and at the end of this same year the Company gave up all the wiring work to which it had formerly attended for its customers and devoted itself henceforth exclusively to the supplying of electric current. At this time the Company had been in existence for ten years; the number of customers was 4,344, and there were 171.79 miles of feeders and mains.

From that time changes were rapid and numerous; sub-stations were built all over Manhattan and service mains pushed their way into all parts of the island. So another decade of existence brought the necessity for a plant that should not only provide for present demands but give possibility of meeting greater demands yet to

come. In 1903 Waterside Station Number 1, complete with sixteen vertical engines of 5200-5500 horsepower each, sent out electrical energy to various distributing centers. But even this was not enough for the growing city and for industry which under the spur of electric power was being re-made and thereby re-making New York. So Waterside Number 2 was built in 1906, beside Waterside Number 1 at First Avenue and Fortieth Street.

In both stations today, in contrast with 750 horsepower in generators in the little old Pearl Street station, are generators of nearly 500,000 horsepower, among them great units of 45,000 horsepower each, with still larger ones planned. And from these electric current goes to thousands of customers through miles of mains covering all Manhattan and the Bronx.



# A Logical Change

A CLEAR case of private plant inefficiency in a new building with up-to-the-minute equipment is always worth talking about. While such cases are by no means uncommon in Central Station experience, the public is not always aware of them, or at least under their right names. The recent adoption of Edison Service by the Elks' Club on West Forty-third street is of such interest, not only because the building is well known but because the equipment concerned is undoubtedly modern.

When the big building was under way the question, as usual, came up as to the relative merits of a private plant and Central Station current. And while the Central Station's claims were well represented, the Building Committee decided upon a plant.

This plant for some time continued to supply the service required of it. In the meanwhile an investigation was made by Edison engineering experts which showed conclusively that a substantial saving could be made by abandoning the plant. However, the effort, as formerly, was without result.

Some few months ago the attempt in the interest of Edison Service was renewed—and was listened to. As before, scientific estimates were made of comparative costs which, after due consideration by the Club authorities, were admitted as accurate. The installation of Edison current followed directly.

As remarked at the start, special interest centers in the fact that the generating equipment displaced was

new. It was, furthermore, of a type regarded as among the best obtainable. It consisted of two 150 K W, 250-volt, 3-wire units, each direct connected, and one 75 K W, 250 volt, 3-wire unit, also direct connected. A total thus of 375 K W was represented. The output of this plant was about 250,000 kilowatt hours yearly.



*Photographic Bureau of The New York Edison Company*

**Big Frosted-Panel Hanging Units Provide Ideal Lighting for the Popular Roof Dining-Room**



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

### **B P O E Lodge No 1 Which Has Recently Abandoned Its Plant for Edison Service**

At the time of the erection of the building this Company's engineers estimated that the consumption would be 247,500 kilowatt hours—a figure,

under the varied nature of the requirements, remarkably close.

The present electrical equipment includes 4000 incandescents and 260

## The Edison Monthly

horsepower in motors. This motor installation sees constant use in the operation of four passenger elevators, two service lifts, ventilating fans and organ blowers, together with kitchen, barber shop and café accessories, including fans and mixers.

Power is also supplied a 25-ton refrigerating machine of the De La Vergas type. This equipment cools food in food storage boxes in the kitchen, it supplies the necessary cooling for the drinking water used in all parts of the building, and in addition operates an ice machine which makes on an average two tons daily.

The pumping equipment includes two duplex boiler-feed pumps, two duplex house-service pumps, two vacuum pumps, one small duplex sewer pump, and is also used in connection with a two-pipe heating system. In fact, this pumping outfit, together with the maze of other mechanical aids throughout the building, reflects a thoroughness with which few structures in the city, modern or otherwise, can compare.

Such an electrical equipment, supplied as it now is by the unequalled service of the Central Station, is in every way worthy of the magnificent fifteen-story structure of which the Elks of the district are so deservedly proud.

### The Defeated King

*(To the Central Station on Its Thirty-fifth Anniversary)*

You have battled the King of Shadows,  
And wherever he seeks to sway  
With his gloomy ghosts, your gleaming hosts

Of light bands leap and play,  
Until his black battalions break  
And swiftly steal away.

For years in the teeming City  
You have made the King retire  
To the farthest rim of his borders dim,  
As your swift gleams drive him higher,

Where he watches the flare of changing lights,  
Like twisting tongues of fire.

So he sulks in his gloom of shadows,  
While he dreams of his olden fame,  
When as King of Night the City's might  
Paid tribute to his name,  
In the years before you wrote his doom  
With livid lines of flame.

*George B. Staff*



*Photographic Bureau of The New York Edison Company*

The Lodge Room, with Its Ceiling, Cornice and Eye-Level Lighting, Is One of the Best Lamped Interiors in the City



# Pipes in the Making

**C**OULD one of those Colonial gentlemen who found it such a problem to select a pipe come back long enough to walk into any of a thousand New York tobacco shops he could buy for ten cents an article that would compare favorably with the ones which he had been accustomed to purchase abroad at much expense and trouble. When pipes can be turned out at the rate of 600 gross a week in a modern factory, the romance of the personal touch has vanished. But prices come down and pipes that formerly only the well-to-do could own are now the common possession of everyone.

The manufacturing processes which every pipe must go through are many, but they are comparatively simple as seen in the factory of L & H Stern Company. In general the methods here are representative of pipe manufacturing everywhere. Every pipe, from the one that sells at ten cents to the most expensive, goes through thirty-five different processes before it leaves the factory. This is not quite as complicated as it seems, for many of the processes are very similar, varying only in some minor detail. All but two or three are done by electrically operated

machinery, only the final inspection, some parts of staining and packing being done by hand. Considering these operations in groups, there are the cutting and shaping machines; those that bore the bowls and stem holes; the sand-papering lathes, and the machines for staining and polishing.

The wood comes to the shop cut in rough blocks. Twenty-five automatic turning lathes, run by electricity, take these blocks and shape them into bowls of varying sizes and designs. Then comes the boring of holes for stems. Between thirty-five and forty machines do this in the Stern factory, all under electric power. The work is divided on sharply defined lines, one group of employees doing the boring, another the shaping. In this way the men become specialists in their par-



*Photographic Bureau of The New York Edison Company*  
Electric Motors Totaling Thirty Horsepower Have Displaced a Steam Engine in the Factory of L & H Stern Company



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

Thirty-five Different Processes Are Involved in the Manufacture of Pipes

ticular branch, and greater production is possible than if one man made the complete product from cutting to finishing. After boring come the sand-papering and finishing processes. These give the proper finish to the surface, preparing it for staining, or in the case of the finer briers, for polishing.

The war has so raised the cost of brier that pipes of this wood are now in the luxury class. There is a big demand, however, for a well-colored dark pipe at a moderate price, and to satisfy this market the Stern Company has originated a special staining process. The bowl is subjected to a heating, staining treatment under electrical force, which produces the uneven coloring and tones of brier-wood. This process has resulted in a pipe, moderate in cost, that has proved its popularity by wide sales.

South Africa, Russia, China, Europe, the entire world enjoys its smoke, and the odds are great that it is through an American-made pipe.

From the Stern factory shipments go to all quarters of the globe. Freak styles are made up largely for foreign trade: queer bowls carved in the shape of a man's head, others to represent a pistol or any other fantastic idea. Americans seem more conservative in their tastes, liking the plain unadorned bowl best. More than five hundred different style pipes have been made by this one

concern at one period or another.

An interesting feature of the Stern factory is its system of keeping the air clear. In this it has shown itself to be heartily in sympathy with a growing number of dust-producing industries which have adopted blower systems of special types recommended by safety experts and organizations whose researches have qualified them to advise to advantage on industrial health measures. Each of the several floors of this progressive establishment is equipped with blowers which absorb the wood dust, drawing it up to the roof, where it is stored and sold to a chemical company. By these means the factory is kept clean and healthful, and an otherwise useless product made to yield revenue.

Formerly blowers and all other machines were run by steam power, but recently, after an investigation of costs, a change was made to electricity. The New York Edison Company supplying the current for motors totaling 30 horsepower and 90 incandescents.



# Delivering the Goods

**T**HE present and growing necessity for food conservation has been treated by press and public very largely from the standpoint of production. Among large dealers in foodstuffs, great if not equal concern is being given that other paramount factor in supply, namely, distribution.

While much attention is being directed to the ready transportation of such goods by rail, New York wholesalers have been and are providing themselves with the most efficient means of getting these goods about the

city, and this means has been found in the electric truck. For not only has the electric shown itself the cheapest in operation but the most dependable for this important work.

As prominent a concern as the New York Butchers' Dressed Meat Company have among many others expressed themselves strongly in favor of the electric vehicle. The manager of distribution states that during their eight years' use of these wagons they have found them ideally suited to requirements. Five of their equipment of eleven trucks were bought in



*Photographic Bureau of The New York Edison Company*

Part of the R C Williams Fleet that Makes Daily Deliveries as Far as Ridgewood and Jamaica

## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**One of the Eleven Trucks that Are Performing Ideal Service for the New York Butchers' Dressed Meat Company**

1909 and proved so satisfactory that six more were secured the year following. The fleet today consists of nine  $3\frac{1}{2}$ -ton trucks and two smaller wagons of two-ton capacity for the picking up of shop fat about town. Such is the efficiency, not only of these collecting wagons but of the big delivery trucks, that as many as 100 deliveries are frequently made in an eight-hour day.

Mr W L Juhring of the R C Williams Company speaks with equal enthusiasm of the twelve electric trucks that have been doing duty, some of them since 1909, for this big grocery house. Not only has repair cost proved all but negligible; the cars themselves, many of which saw service before their purchase by the Williams Company, promise to last all but indefinitely. Yet the fleet is one of the most hard working in town. These wagons, including a big 14-ton Couple Gear truck, have been doing each from 35 to 50 miles daily and

make hauls as far distant as Jamaica, Ridgewood, and Coney Island as a matter of course.

Emphasis on the great value of the electric delivery truck for short hauls is made by Mr G M Ballou of the Cushman Bakeries as follows:

"The electric truck has certainly made good in our delivery ser-

vice. Especially have we found it valuable in short hauls which constitute, naturally, the bulk of our work. We bought two special electric trucks five years ago and put them into the hardest sort of all-day work. Since then we haven't spent more than \$5.00 for repairs on any one of them. Both of them are as good to-day as when we first installed them."

The Blue Valley Butter Company of Chicago on establishing its branch here was confronted by a delivery problem that involved daily runs with a hundred and more stops. Fortunately the difficulty had already presented itself in Chicago, where after careful investigation a fleet of electrics was put in operation. It was found first that these met perfectly the peculiar delivery difficulties of the case. It was found further that they insured a degree of cleanliness impossible with any other service. In view of this Chicago experience, twenty electrics were decided upon for the New York



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**Quick and Dependable Deliveries Are Assured C Perceval, Inc, by These Efficient and Always Available Electrics  
They Have Shown Themselves Superior to Any Other Means of Delivery Tried**

branch, where they have contributed substantially to the rapid growth of the business.

Mr E S Parker, delivery superintendent of Charles Perceval, Inc, considers the electric vehicle a vast improvement over any other form of delivery they have tried. From inquiries he has made among users of automobiles in his field he finds that in the prevailing opinion the electric truck has come to stay. Four of these trucks have been giving this firm the quick and dependable delivery service needed in the successful carrying on of the business.

Tests of comparative costs show that for any haul exceeding a half mile the motor truck is from ten to twenty-five percent the cheapest. Its increasing use by the concerns quoted proves beyond question its superiority for delivery purposes of all descriptions and for all weathers.

### Russian Electrical Enterprise

**I**N the midst of present disturbed conditions in Russia, news of continued interest in electrical development is most encouraging. Moscow capitalists are reported to be organizing a stock company to supply electric current for the operation of coal and other mines and of manufacturing industries in South Russia. A capital of \$42,850,000 will start operations. The plan embraces the erection in the Donets coal basin of three electric power stations of 75,000 horsepower each. Power will be transmitted from these stations not only to the mines but to industrial towns in the district. A total consumption of 420,000,000 kilowatts is estimated for the proximate future after the conclusion of hostilities. Ground will not be broken until then, although plans are ready for immediate operations.



# An Upward Trend

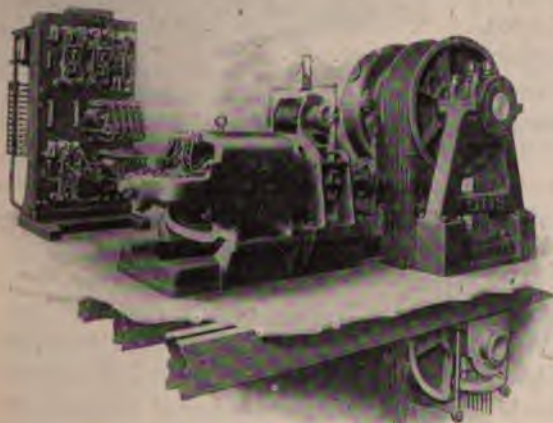
**N**CESSITY presumes many an expedient, including hydraulic elevators. There was a time, and not so long ago either, when lifts of this type represented the extreme development in elevator science. A glance at the later advances in electric elevator design will go far toward

moderate height where cars of moderate speed are required.

An interesting development of this type is the automatic push-button machine which is adapted for use in residences, banking institutions, and small apartments. By means of a special controller actuated by a series

of push buttons in the car and at the landings each passenger is his own operator. He is able to call the elevator to him at will and to send it to any floor desired by the pressing of the proper button.

The advent of the steel skeleton skyscraper four hundred and five hundred feet high found the drum machine out of the question. In other words, such a tremendous drum around which to wind the cables would have been necessary that the apparatus would have proved



The Worm-Gear Traction Equipment of Latest Type Used for Low Speeds

explaining this passing of the once popular hydraulic.

Possibly the first electric elevator was installed in the A T Demarest Building at 335 Fifth Avenue in 1889, and it is still doing business. The first electric machines were confined entirely to the drum type. This was a machine with a grooved drum about which the hoisting cables of the car were wound. The drum was driven through worm-gearing by an electric motor. Elevator machines of this description have since been greatly perfected and today are used widely both here and abroad in buildings of

impracticable. The hydraulic elevator for rises of such height was found as well to be cumbersome and very expensive. The evident necessity for a car of the modern sort brought about the invention and development of the geared traction elevator. Its principle is shown in the accompanying illustration. Motion is due to the fact that the "traction" exists between the hoisting cables and the sheave or driving wheel. The car is suspended at one end of the cables and the counterweight at the other. These cables pass over a driving sheave, from there around an idler sheave, and back



## The Edison Monthly

again around the driving sheave. In this way the cables form a complete loop about these two sheaves. The driving wheel is run by a moderate speed motor through worm gearing. The machine itself is located as a usual thing over the hatchway where the space needed, in contrast with the large space needs of the hydraulic lift, is negligible for other purposes.

But the geared traction machine was not to mark the ultimate progress of the electric elevator. From this type evolved presently what is considered the most finished elevator product in the world today, namely, the gearless traction elevator. In principle the two machines are similar. The main difference is the doing away in the gearless machine with intermediate gearing and the substitution of a highly efficient slow-speed motor directly connected with the driving sheave. Such compact, simple design, together with the accurate starting, stopping, and control features, has given this

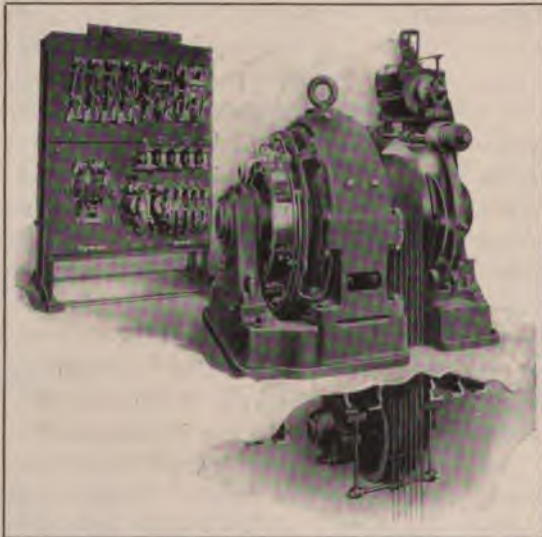


Old Drum-Type in Use up to the Advent of the Traction Machine

type of elevator precedence over all others for skyscraper service. The majority of the city's tallest buildings are now equipped with this type.

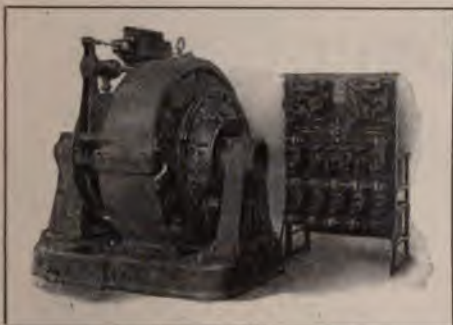
An offspring of the elevator just mentioned is the 2:1 gearless traction machine. This permits of slower speeds owing to the use of a sheave on the car and a sheave on the counterweight and the 2:1 rope ratio resulting therefrom. The hoisting cables are fastened to overhead foundation beams at the top of the hatchway. The 2:1 development permits the installation of the remarkably efficient gearless machine in buildings of the medium height.

Traction elevators of whatever sort are safer than other types because it is impossible for either the car or the counterweight to run beyond the limit of travel. Aside from the usual electric



The High-Speed Gearless Traction Otis Machine

## The Edison Monthly



The One-to-One Gearless Traction A B See Drive

automatic stopping devices, it is not possible for these cars to overrun, for, should they reach the limit of travel and the motor continue to run, the hoisting cables would slip on the driving sheave. All elevators of the electric type are provided with a safety device which will grip the guide rails and hold the car from further descent. There is also an emergency switch in these cars. Traction elevators are supplied with oil-cushion buffers, one in the pit which arrests the car and the other on the counterweight which prevents its overrunning. These buffers are designed to bring to a gradual stop a car with a full load descending at full speed.

The developments mentioned have one and all come about within the past fifteen years, though they represent the culmination of over sixty years' experience in elevator science. This experience while it has been relatively rapid has been most thorough. It is within fifteen years that the elevator installations in many of the more prominent properties have been changed to electric. For the electric elevator is preeminently safe, reliable, and productive of most satisfactory service. Among the more telling factors responsible for the general use of the electric, as com-

pared with the hydraulic equipment, is the convenience and at the same time the economy in obtaining electric current from the Central Station. Otherwise space must be given a steam pumping plant while additional labor must be provided for its operation.

Some have thought it desirable to use elevators of the hydraulic type so as to employ the exhaust steam from the pumps for heating. But it has been conclusively found from test that exhaust steam is often insufficient for heating large buildings. The very considerable waste of such an arrangement in the summer months when no building heating is called for cannot but be a decided factor in favor of Edison Service, especially at the present time when coal saving is of such primary importance. This, together with the space-saving consideration and safety and superior efficiency of construction, has brought about the use of the electric car in the vast majority of modern properties.



An A B See Machine of the Two-to-One Gearless Traction Type



# Inside Information

**I**N the year 1863 a Frenchman named Fourneaux devised for the piano keyboard a pneumatic apparatus which depended for operation upon the exhaustion of air through a crank-actuated bellows. Formerly the principle of pneumatics had been applied only to the construction of tubular-pneumatic action for organs, and even after Fourneaux demonstrated its applicability to the piano, the idea languished until 1881. Then Merritt Gally, of New York, patented a similar but improved device, and it was not long before other patents were issued, and the new industry of mechanical-piano making developed with great rapidity.

This is the field of the American Player Action Company, whose factory is at 2595 Third avenue. For some years this company has been turning out complete pneumatic actions for piano makers, its output being five thousand annually. It now purposes, with recent electrical equipment on Edison service, to increase this number to 10,000. The whole prospective output has been ordered in advance and the factory is working at high speed to complete its contracts.

To enter into the details of manufacture would involve a lengthy discussion of the principles of pneumatics. Suffice it to say, therefore, that wood-

working constitutes a large part of the actual manufacturing processes, including the fashioning of wood strips for bellows and striking pneumatics (one of the latter for each key of the piano) and the cutting of the valve blocks which are known as the



*Photographic Bureau of The New York Edison Company*

**Electrically Operated Saws Perform All Cutting Operations in the Preparation of Wooden Parts**

"units" of the action. All wood-working machinery is operated by electricity, and a new loft has recently been taken to accommodate this work.

The valve block together with its accompanying diaphragm is the chief original feature upon the basis of which the company claims exceptional excellence for the tonal results obtained in the complete player-piano. These blocks are bored on automatic machines, and one complete unit is produced every three seconds. When they are assembled, the valve blocks, one for each key, are arranged in three



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**Packing Skins Are Cut Accurately by the Use of an Electric Cutter Such as Tailors Use, and Much Time Is Saved Thereby**

banks, controlling the vertical pneumatics.

Glueing is another process which enters into almost every detail of the player-action manufacture. A first installation of eleven electric glue-pots of pint capacity has recently been increased by forty more, and each individual worker has one at hand. These small pots are heated by stoves of 250-watt consumption, the glue being prepared in master glue-pots of larger size.

An unusual and specially designed installation for heating wood has also been made, since a certain temperature of the wood is required for successful results in the various glueing operations. Such heating is now performed by means of a long electric hot-plate where the wood strips can be laid for the necessary length of time. Among the processes requiring this combination of carefully prepared glue and wood at a certain temperature are the uniting of the valve

block and the diaphragm to form the unit; the securing of discs of Persian lamb to the valves; the attaching of zephyr skin to blocks to form the diaphragms of the unit and the re-wind valve, and the fastening of rubber cloth on wood strips for bellows and pneumatics.

An electric sand-papering device prepares the various wooden parts for a coating of shellac, and an electrical cutter like that used in tailoring establishments is employed to cut the packing skins and other materials used, accomplishing in a few moments what would take an operator hours if he had to cut it strip by strip.

It is of course the saving of time by such means and the greater efficiency obtained by the use of electricity that is making possible the filling of the large contracts which the company has undertaken. Electricity, in fact, has shown itself peculiarly adapted to work of this sort.



*Photographic Bureau of The New York Edison Company*

**One Part of the Factory Space Is Given Over to the Assembling of Parts, After Which the Keyboard Is Tested for Accuracy**



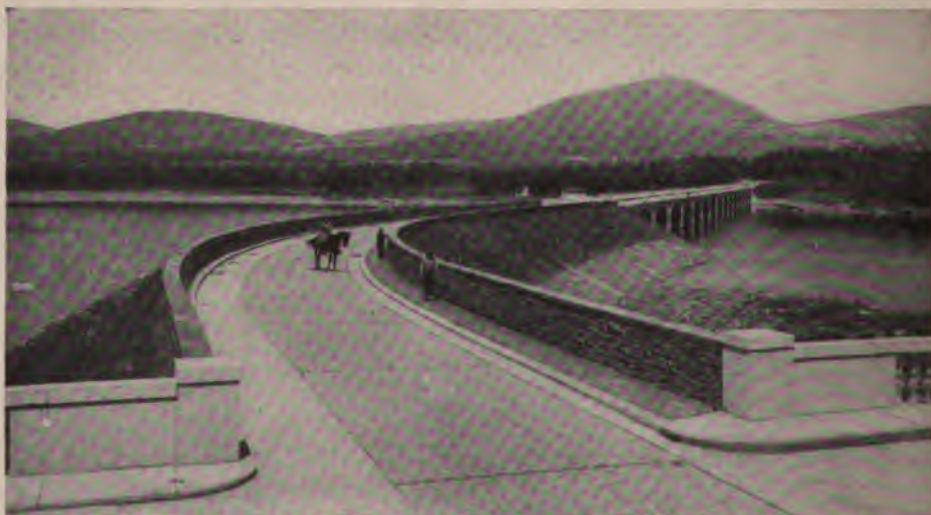
# Five Hundred Million Gallons a Day

**A**S in all small towns and villages, even of this day, the early settlers of New Amsterdam obtained their water from wells and springs. A city map of 1660 notes wells belonging to three private citizens and two breweries. Besides these, two springs were available, "Kalch Hook" (later Collect) and the "Tea House." "Kalch Hook" was on the site of the present City Prison on Center Street, while the "Tea House" was at the west side of Park Row near Roosevelt Street. At this time the population was about 2,000.

In 1677 six public wells were ordered; in 1700 four more, and an annual appropriation of \$40.00 was voted. This munificent outlay sufficed till 1750, when pumps came into use, and

the City Fathers were obliged to finance their construction and maintenance. Unfortunately, New York had practically no sewerage system. Consequently, the wells in time became infected and "Tea House" water was carted and sold through the city.

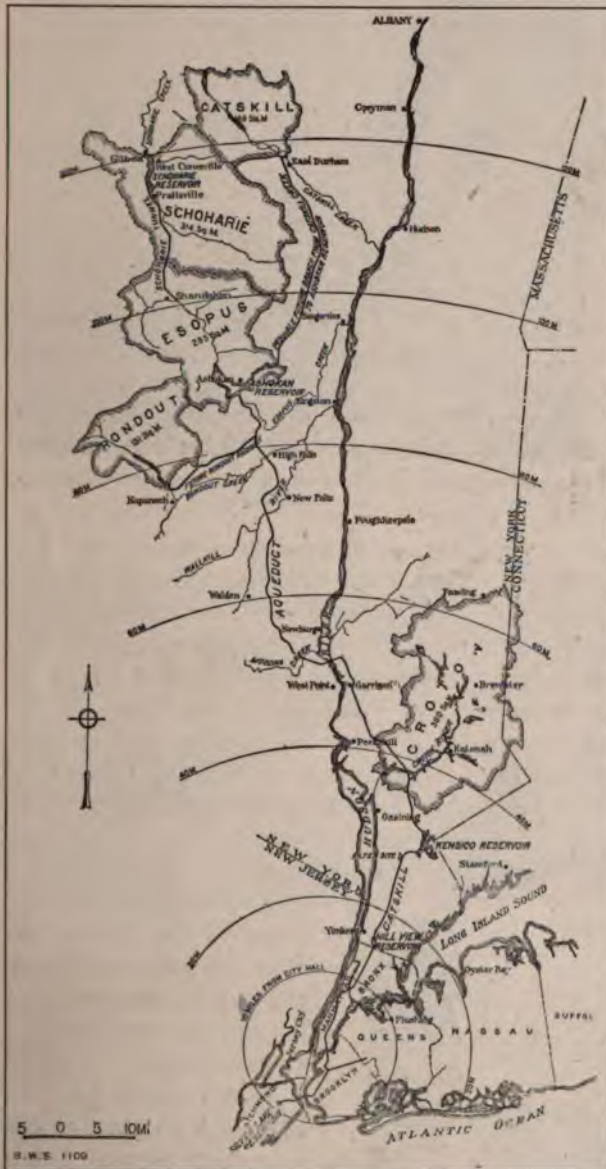
The first water-works was a private enterprise. Well water was pumped by steam into a reservoir near Collect Pond and sent to householders through log water-mains. This Collect Pond reservoir, completed in 1776, formed the City's water supply until after the Revolution. From then on until the founding of Aaron Burr's "Bank of Manhattan" company, rival water plans battled for public favor. That water supply was allied to banking in Burr's scheme was a political scandal,



*Photos by courtesy of the Board of Water Supply*

The Bridge and Dividing Weir of the Ashokan Reservoir. In June, 1917, When the Picture Was Taken, the Reservoir Had Not Yet Filled

## The Edison Monthly



The Source of New York's Water Supply and the Route by Which It Reaches the City

for in order to attract the two millions of capital needed, Burr concealed in the charter a clause permitting banking with "surplus funds." When, forty years later, the water-supply business was on the wane, the bank-

ing privilege was immensely valuable.

The Bronx River, first advised as a source of supply in 1798, was actually developed between 1825 and 1827. In 1830 Francis Phelps suggested the Croton River and from then on until ground was broken in May, 1837, there was a continual controversy of plans and counter-plans as to the source of New York's water supply. One of the suggestions was a ship-canal from the Passaic at Paterson to Hoboken, ending in a reservoir there, whence water was to be piped to New York. The Croton was finally selected and completed in 1842. The system was 41 miles long, and included Highbridge and the reservoirs in Central Park and at 42nd Street, the site of the present Public Library. Then the population was about 350,000, and the supply was adequate until 1880.

The City had hardly ceased boasting about its water supply before it had been outgrown. Thus the supply from the Croton had to be increased and a new aqueduct built. The new conduit was constructed from 1884 to 1893, the 33 miles of the new



## The Edison Monthly

project being put through at a cost of \$20,000,000. Still New York grew and steps were taken to enlarge the supply. This time it was necessary to go to the Catskill Mountains for it. Ten years ago, the first shovel was turned on this gigantic work, which, unlike most public projects, has been completed within the time and the appropriation originally estimated.

The Catskill Aqueduct, which is to provide 500,000,000 gallons of water daily to New York, begins in the quiet valley of Esopus Creek, where 132,000,000,000 gallons of water are impounded in the great Ashokan Reservoir. On its way to the City, the Aqueduct crosses eight sizable creeks and rivers, among them the Hudson, the Croton and the Harlem. Where Storm King stares across the Hudson above West Point, the tunnel passes under that mighty



Laying the Sections of Pipe under the Narrows, Between Brooklyn and Staten Island

stream at a depth of nearly 1200 feet below the river-bed. Another tunnel crosses the East River to Brooklyn, as deep below the surface as the Woolworth tower is high. Next, the Aqueduct crosses the Narrows in a flexible pipe line to its termination on Staten Island. It is of interest to note that water leaving the Catskills will reach its destination in New York just three days later.

Twenty-three shafts, rising to the surface, deliver the water and divide the city in three sections for control, for repairing and cleaning.

The reservoirs, beginning with that at the source, presented engineering problems as great as those of the Aqueduct itself. These reservoirs, Ashokan, Kensico, Hill View and Silver Lake, have a total capacity of more than 170 billion gallons of water.



Not Only Were Comfortable Living Quarters Provided for the Laborers, but a Complete System of Education Was Established for Their Children



## The Edison Monthly

The performance of such enormous tasks developed different methods of construction from those previously used. Up-country a complete traveling concrete plant, including railroad equipment, was employed for "cut-and-cover" sections. Large compressor plants were provided to supply air for the drills, electric locomotives were used for hauling the muck, electric motors hoisted the

bores its way under rivers, and tunnels mountains, only 55 miles of the entire length being cut-and-cover work. On the other hand, the average bottom width of the canal is about 600 feet, while the diameter of the aqueduct varies from nine to seventeen feet. Starting at the Ashokan reservoir at 610 feet above tide-water, the aqueduct reaches 1114 feet below sea level in crossing the Hudson, while



The Waste Weir and Spillway Bridge of the Ashokan Reservoir Where There Is a Flow of More than 3,000 Cubic Feet per Minute

débris to the surface and, of course, electricity lighted the men at their tasks.

Comparisons are never entirely satisfactory, and yet the only way to grasp the scope of work entailed by this aqueduct is to compare it with the Panama Canal, since which is the engineering achievement that it most nearly approaches. The canal, including ten miles of out-shore dredging, is 52 miles long; the aqueduct is 128. The canal was open-cut construction; the aqueduct crosses valleys,

under New York City it is 200 to 750 feet below street level and drilled through solid rock.

The entire cost of the canal, including payments to the French company and to Panama itself, was 375 millions. This sum covers the expense of the sanitary and civil administration of the Zone. The cost of the aqueduct is 138 millions. Circumstances are sometimes appropriate. It happens that the completion of this great work comes just seventy-five years after the finishing of the first Croton Aqueduct.



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Motors

#### General Uses

Allis-Chalmers Co—50 Church St  
Barker John H—95 Liberty St  
Bogue Electric Co C J—513-15 W 29th St  
Boker H & Co Inc—101-103 Duane St  
Bell Electric Motor Co—30 Church St  
Burke Elec Co—30 Church St  
C & C Electric & Mfg Co—90 West St  
Century Electric Co—30 Church St  
Colonial Fan & Motor Co—150 Chambers St  
Crocker-Wheeler Co—30 Church St  
Diehl Mfg Co—140 Broadway  
Eck Dynamo & Motor Co—46 W Broadway  
Electro-Dynamic Co The—Ave A Bayonne N J  
Emerson Elec Mfg Co The—50 Church St  
General Electric Co—120 Broadway  
Holtzer-Cabot Electric Co—83 Warren St  
Imperial Elec Co (Watson)—253 Broadway  
Lincoln Electric Co—149 Broadway  
Mechanical Appliance Co—154 Nassau St  
Northwestern Mfg Co—243 Canal St  
Peerless Elec Co—147-9 W 35th St  
Reliance Electric & Engineering Co—90 West St  
Robbins & Myers Co The—30 Church St  
Sprague Electric Works—527 West 34th St  
Triumph Electric Co—114 Liberty St  
Wagner Electric Mfg Co—30 Church St  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

#### Inspection—Maintenance—Repairs

Blackall & Baldwin Co—39 Cortlandt St  
Bogart Co A L—55 Barclay St  
Borne Chas A Co Inc—35-37 Wooster St  
Comstock Associate Co—101 Park Ave  
Conlan Electric Co—43 Murray St  
Elec Machine Tool Co—50 Church St  
Elec Motor Insp & Rep Co—1 Beekman St  
Elec Repair Co—548-550 W 23d St  
General Electric Inspection Co—237 Fulton St  
Globe Elec Cont & Rep Co The—434 Broome St  
Graham Bros Co—585 Hudson St  
Hammill John—55 Ann St  
Harlem Electric Co—6 E 116th St  
Jordon Bros Inc—74 Beekman St  
Kelting Electric Co—119 Pearl St  
Leve Robert E—19 E 32d St  
Maintenance Co The—417 Canal St  
National Electric Co—89 Centre St  
Naumer Elec Co—96 Beekman St  
Naylor & Newton—243 Canal St  
Peerless Engineering Co—147-49 W 35th St  
Russell & Co—56 W 45th St  
Schoenberg R A & Co—906 6th Ave  
See Van Dyck C—39 Cortlandt St  
Weiderman Geo Elec Co—35-37 Rose St  
Westinghouse Elec & Mfg Co (Repair Shop)—  
467 10th Ave cor 36th St

#### Starters and Controllers

Allen-Bradley Co—50 Church St  
Automatic Switch Co—4 White St  
Curtis-Carhart Co Inc—150 Chambers St  
Cutler-Hammer Mfg Co The—50 Church St  
Electric Controller & Mfg Co The—50 Church St  
General Electric Co—120 Broadway  
Industrial Controller Co—50 Church St  
Rowan Electric Mfg Co—39 Cortlandt St  
Ward Leonard Electric Co—Mount Vernon N Y  
Westinghouse Elec & Mfg Co—165 Broadway

#### Used Motors

Archer & Baldwin—114-118 Liberty St  
Cutter Co F B—50 Church St  
Duzets & Son—546 W 45th St  
Graham Jas A—30 Church St

Holcomb & Co D S Inc—241-3 Canal St  
Klein & Co—208 Centre St  
Oneida Elect Co—313 Canal St

### Office Accessories

Edison Dictating Machine—Orange N J 114  
Liberty St NYC  
Ensign Elec Calculating Machine—280 B'way  
"The Dictaphone"—83 Chambers St  
The Hooven, Owens, Rentschler Co—Woolworth  
Building  
"The Millionaire" Elec Cal Mach—1 Madison Ave

### Pumps

Beach-Russ Co—220 Broadway  
Blackall & Baldwin Co—39 Cortlandt St  
Boker H & Co Inc—101-103 Duane St  
D'Olier Centrifugal Pump & Machine Co—503  
Morris Building Philadelphia Pa  
Goulds Mfg Co—16 Murray St  
Holland Machine Co—90 West Broadway  
International Steam Pump Co—115 Broadway  
Lea-Courtenay Co—90 West St  
Platt Iron Works The—50 Church St  
Quimby William E Inc—548 West 23d St  
Rider Ericsson Engine Co—20 Murray St  
Rumsey Pump & Mach Co—75 Warren St  
Twinvolute Pump and Mfg Co—30 Church St  
Western Elec Co—463 West St and 105 W 40th St

### Refrigeration

Automatic Refrigerating Co—50 East 42d St  
Brunswick Refrigerating Co—30 Church St  
De La Vergne Machine Co—Foot of East 138th St  
Electrical Refrigerating Co Inc The—Woolworth  
Building  
Johns-Manville Co H W—41st St & Madison Ave  
Montclair Refrigerating Corp—Woolworth Bldg  
Shipley Const & Sup Co—Columbia St Bklyn N Y  
Triumph Ice Machine Co—30 Church St  
Voss Ice Mach Works—242-252 East 122d St

### Signs

Adams Bagnall Co—114 Liberty St  
B & B Sign Company—347 Fifth Ave  
Bilt-Well Sign System (Elec) 113-115 E 15th St  
Bofinger Bros—146 East 42d St  
City Electric Sign Co Inc The—444 E 13th St  
Commercial Sign Co Inc—449 W 40th St  
Empire Elec Sign Co—162 East 118th St  
Federal Sign System (Electric)—649 W 43d St  
Fricker Frederick—430 11th Ave  
Frink I P—24th St and 10th Ave  
Gude Co O J—220 W 42d St  
Halpern Bros—210 West 26th St  
Manheimer Co The—162 W 34th St  
Martin P J—306 W 53d St  
Mechling Charles J—477 Willis Ave  
Mercantile Adv Co—17 Battery Pl  
Norden Electric Sign Co Inc—311 W 40th St  
Opal Sign Co—254 Tenth Ave  
Pisch Electric Sign Co Inc The—415 W 48th St  
Prismlyte Co The—8 St Felix St Brooklyn  
Snow & Co—531 W 46th St  
Rice Geo H Co Inc—481-87 Sterling Pl Bklyn  
Strauss & Co—209 W 48th St  
Strauss L L—74 W 125th St  
Universal Elec Stage Ltg Co—240 W 50th St  
Viking Sign Co—527 Fifth Ave  
Wertheimer Sign Co—558 W 36th St

#### Sign Flashers

Betts & Betts Corporation—511 W 42d St  
Phelps Mfg Co—729-31 Broadway  
Reynolds Elec Co—1123 Broadway



# The New York Edison Directory

## Manufacturers and Agents (Concluded)

### Supply Dealers

#### Manhattan

Alpha Elec Co Inc—116-118 W 29th St  
Baily Elec Supply Co—62 Vesey St  
Bohn Elec Co C C—820 6th Ave  
Bunnell & Co J H—32 Park Pl  
Burnet Co The—69 South St & 1800 Park Ave  
Central Electrical Supply Co—4 West 16th St  
Crannell, Nugent & Kranzer Inc—110 W 30th St  
Fox Electrical Corporation—119 W 42d St  
Fullerton Electric Co—109-115 W 26th St  
Goetz A E—55 Barclay St  
Hartt & Morison—780 Sixth Ave  
Killoch Co David—57 Murray St  
Latham & Co E B—4 Murray St  
Leahy J J Electrical Supplies—48 Dey St  
Leveridge Chas W Inc—133 Liberty St  
Manhattan Electrical Supply Co—17 Park Pl  
110 West 42d St, 127 West 125th St  
Metropolitan Elec Products Co—101 W 42d St  
Metropolitan Elec Supply Co—126 W 36th St  
N W Elec Equip Co—35 Vestry St  
Ostrander & Co W R—371 Broadway  
Public Electrical Supply House—62 Essex St  
Royal-Eastern Elec Sup Co—114 W 27th St  
Schoenberg R A & Co—906 6th Ave  
Sibley-Pitman—19-21 West 36th St  
Smith J M & Son—4 E 8th St  
Thomas & Betts Co—105 Hudson St  
Western Elec Co—463 West St and 105 W 40th St

#### Bronx

Bronx Elec Supply Co The—612 Melrose Ave  
Royal Eastern Supply Co The—506 Willis Ave  
Webber Supply Co The—558 Melrose Ave

### Electro-Plating Apparatus and Supplies

Bogue Electric Co C J—513-15 W 29th St  
Green Electric Co W—81 Nassau St  
Munning-Loeb Co—50 Church St

### Specialties

Aladdin Lamp Corporation—52 Vanderbilt Ave  
Alpha Elec Co Inc—116-118 W 29th St  
(Harter Weatherproof Fixtures)  
Bonnell & Co W A—132 Church St  
Bromley-Mercedes Mfg Co (Dishwashing Machines)—1328 Broadway  
Brown Elec Co Wm S—3 W 29th St  
Chapin Co Chas E—201 Fulton St  
Corliss Carbon Co—114 Liberty St  
Cutler-Hammer Mfg Co The—50 Church St  
DeVeau Tele Mfg Co—472 18th St Bklyn N Y  
Electric Fountain Co The—348 W 42nd St  
Fox Electrical Corporation—119 W 42d St  
Frantz Premier Distrib Co Inc—119 W 42d St  
Fulton-Bell Co—105 W 40th St  
Guarantee Electric Products Co—47 W 42d St  
Howe Scale Co of N Y The—341 Broadway  
Kirkman Eng Corporation—237 Lafayette St  
Mercantile Adv Co—17 Battery Place  
Organ Arthur—114 Liberty St  
Pittsburgh Electric Spec Co—412 8th Ave  
Shelton Electric Co—30 E 42d St  
Universal Elec Stage Light'g Co—240 W 50th St  
Wallace Novelty Co Inc The—25 E 24th St  
Ward Leonard Electric Co—Mount Vernon N Y  
White J H Mfg Co—111 No 3rd St Brooklyn  
Wicks Electric Co—Cleveland Ohio

### Dishwashing Machines

Phillipson, Emil—110 W 40th St

### Switch and Distributing Boards

Anderson Mfg Co A & J M—135 Broadway  
Automatic Switch Co—4-6 White St

Crouse Hinds Co—30 Church St  
Empire Eng'g & Supply Co—1 Dominick St  
General Electric Co—120 Broadway  
Johns-Manville Co H W—Mad Ave & 41st St  
Krantz Mfg Co—160 Seventh St Bklyn  
Le Baron B Johnson—Madison Ave & 41st St  
Metropolitan Elec Mfg Co—Long Island City  
Metropolitan Engineering Co—35 Vestry St  
Pringle Elec Mfg Co—39 Cortlandt St  
Rall Frederick—19 Park Pl  
Sprague Electric Works—527 W 34th St  
Trumbull Electric Mfg Co—114 Liberty St  
Walker Electric Co—50 Church St  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

### Vacuum Cleaners

Alpha Elec Co Inc—116-18 W 29th St  
Bohn Electric Co C C (Santo)—820 Sixth Ave  
Comstock Associate Co (Sturtevant)—101 Park Avenue  
Duntley Products Sales Co—295 Fifth Ave  
Federal Sign System (Electric)—649 W 43d St  
Fox Electric Corp (Hoover)—119 W 42d St  
Frantz Premier Distrib Co Inc—119 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hartt & Morison—780 Sixth Ave  
Hot Point Electric Heating Co—147 Waverly Pl  
Hurley Machine Co (Thor)—147 W 42nd St  
Innovation Electric Co—585 Hudson St  
Metropolitan Elec Products Co—101 W 42d St  
Muenzen Specialty Co—131 W 42d St  
Ohio Co The—1463 Broadway  
Regina Co—47 West 34th St  
Richmond Radiator Co—1480 Broadway  
Schoenberg R A & Co—906 6th Ave  
Sloane W & J (Invincible) Fifth Ave and 47th St  
Spencer Turbine Cleaner Co—101 Park Ave  
Tucc Company The—1457 Broadway  
Univ Vacuum Cleaner Maint Co—47 W 38th St  
Western Elec Co—463 West St and 105 W 40th St

### Vibrators and Hair Dryers

Alpha Elec Co Inc—116-18 W 29th St  
Barker Metal Furniture Co—255 Canal St  
Fox Electrical Corporation—119 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hartt & Morison—780 Sixth Ave  
Jorgensen John—114 Liberty St  
Kandem Electric Co Inc—49 E 21st St  
Manhattan Electrical Supply Co—17 Park Place  
110 West 42d St, 127 West 125th St  
Sanax Co Inc The—125 E 23d St  
Shelton Elec Co—30 E 42d St  
Sibley-Pitman—19-21 W 36th St  
Western Elec Co—463 West St and 105 W 40th St

### Washing Machines

Brokaw-Eden Mfg Co (The Eden)—119 W 42d St  
Federal Sign System (Electric)—649 W 43d St  
Fox Electric Corp (Eden)—119 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hart Wallace B—(Arora) (Judd) (1900)  
(Cataract)—46 E 41st St  
Home Devices Corp (Modern Home Washers)  
—Bush Terminal Brooklyn  
Hurley Machine Co—147-157 W 42d St  
National Sewing Machine Co—290 Broadway  
Northwestern Electric Equipment Co (Geyser)—  
35 Vestry St  
Sibley-Pitman—19-21 W 36th St  
Wemlinger Co Inc The—40 Whitehall St  
Western Elec Co—105 W 40th St and 463 West St

### Welders

Lincoln Electric Co—149 Broadway  
Welding Materials Co—114 Liberty St  
Westinghouse Electric & Mfg Co—165 Broadway  
Winfield Elec Welding Machine Co—50 Church St



# The New York Edison Directory

## Wiring and Installation Contractors

### West of Broadway and Fifth Avenue

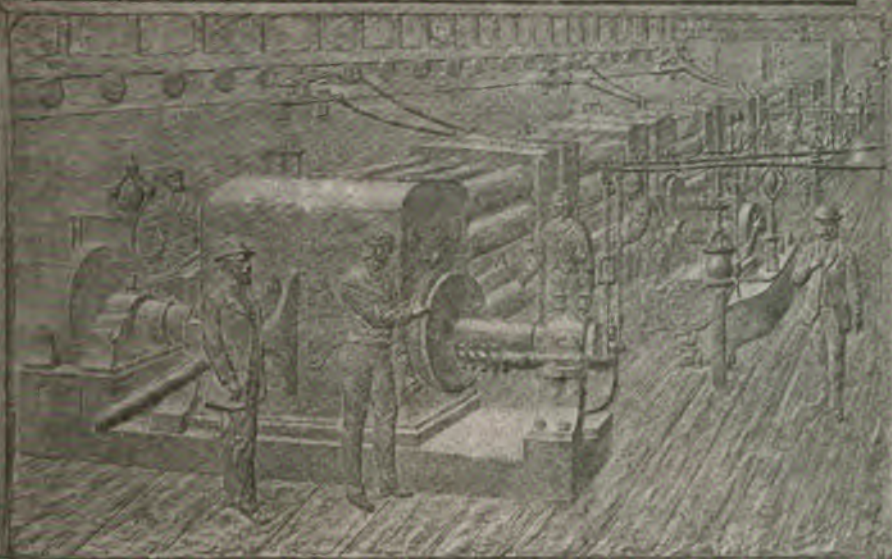
Amsterdam Ave 868—Joseph Rice  
 Amsterdam Ave 943—P D Dunn  
 Amsterdam Ave 984—Sam A Grice & Co  
 Amsterdam Ave 1768—The Lincoln Electric & Repair Shop  
 Amsterdam Ave 1989—Manhattan Electrical Maintenance Company  
 Broadway 212—Charles S Borger  
 Broadway 335—Park Sullinger  
 Broadway 853—J Menkes  
 Broadway 1123—William J Shore  
 Broadway 1133—Van Wagoner-Linn Cons Co  
 Broadway 1170—Alliance Electric Co Inc  
 Broadway 1270—Crocker National Fire Prevention Engineering Company  
 Broadway 1402—Gagen & Butler  
 Broadway 1929—F W Astarita  
 Broadway 1931—Bull-Duroy Electric Co  
 Broadway 1960—E May Inc  
 Broadway 2304—C E MacCabe  
 Broadway 2304—Frank B Widmayer Co  
 Broadway 2382—Howard S Beidleman  
 Canal St 313—Oneida Electric Co  
 Canal St 417—G E Engineering Co  
 Canal St 417—The Maintenance Co  
 Christopher St 41—W Buch  
 Church St 30—L K Comstock & Co  
 Church St 50—William Braun  
 Columbus Ave 220—Thomas F Carr  
 Columbus Ave 348—H Blumenstetter  
 Columbus Ave 517—Samuel Millinger  
 Columbus Ave 549—Hoffman & Elias  
 Columbus Ave 847—Mariposa Electric Co  
 Cortlandt St 26—Cleveland & Ryan  
 Cortlandt St 39—Blackall & Baldwin Co  
 Cortlandt St 84—Bleyle Elec Co  
 Duane St 172—Jas F Hughes Co  
 Eighth Ave 461—A J Buschmann Co  
 Eighth Ave 461—Edward B Stott & Co  
 Eighth Ave 766—H Lauer & Co  
 Fifth Ave 75—H M Walter  
 Fifth Ave 320—J P Hall-Smith Co  
 Fifth Ave 503—Alfred U Keedwell & Co  
 Fulton St 237—General Electric Inspection Co  
 Greenwich St 183—Thomas & Johnson  
 Greenwich St 255—Garret M Ross  
 Hudson St 585—S Edw Eaton & Co  
 Liberty St 120—S Arthur Brown & Co  
 Liberty St 120—Watson-Flagg Engineering Co  
 St Nicholas Ave 1048—George E Ryan Co Inc  
 Sixth Ave 440—A Goldman & Co Inc  
 Sixth Ave 617—Zenker & Siems  
 Sixth Ave 632—John J Finn  
 Sixth Ave 819—Thomas Hindley & Son  
 Sixth Ave 820—C C Bohn Electric Co  
 Sixth Ave 882—P McGunnigle & Son  
 Sixth Ave 906—R A Schoenberg & Co  
 Sixth Ave 1009—John T Whitehead & Son  
 Seventh Ave 360—Louis Freund  
 Seventh Ave 422—Franklin Elec Co  
 Seventh Ave 2286—Nathan Zolinsky

Tenth Ave 466—George E Valley & Bros  
 Tenth Ave 578—Chas F Dunker  
 Thames St 27—McLeod Ward & Co  
 Varick St 143-145—H C Griffin & Co Inc  
 Vesey St 53—F A Frey  
 West Broadway 170—J S Bihin  
 West Broadway 397—A Fox  
 West Broadway 490—X L Machine & Elec Co  
 West End Ave 165—F W Astarita  
 West St 116—Knickerbocker Electric Co  
 West 12th St 101—C S Harris  
 West 14th St 249—Kenehan & Clancy  
 West 17th St 108—Manhattan Elec Cont Co  
 West 17th St 142—Harry A Hanft  
 West 26th St 101—Pruver Electric Co  
 West 30th St 114—Tucker Elec Construction Co  
 West 31st St 109—Jandous Elec Equip Co Inc  
 West 33d St 221—E-J Elec Installation Co  
 West 34th St 20—Harry Alexander Inc  
 West 34th St 110—Nimis & Nimis Inc  
 West 35th St 147-49—N Y Elec Installation Co  
 West 39th St 42—J Fischer Electric Co  
 West 40th St 105—Lord Electric Co  
 West 40th St 337—William W Ritchie  
 West 40th St 447—Manhattan Engineering Co  
 West 40th St 458—George L Ford  
 West 42d St 25—William D Munro  
 West 42d St 112—Oberg Blumberg & Bleyer  
 West 42d St 121—Conduit Wiring Co  
 West 42d St 229—M Schweiger & Co Inc  
 West 42d St 314—A & A Electric Co  
 West 45th St 56—Russell & Co  
 West 45th St 100—Robert Bernecker  
 West 48th St 209-13—Strauss & Company Inc  
 West 53d St 207—Wm A Brown  
 West 53d St 243—W E Nichols  
 West 59th St 401—John T Williams Co  
 West 72d St 176—Kaufman & Burkert  
 West 83d St 121—C A Christesen  
 West 99th St 146—John A Marcato Co  
 West 100th St 204—L Koehler  
 West 116th St 138—P Simpson  
 West 116th St 227—Lewis S Davis  
 West 125th St 71-75—H Kaufman  
 West 125th St 74—Lawrence L Strauss  
 West 125th St 215—M J Heller Elect Co  
 West 125th St 247—Planet Elec & Sup Co  
 Wooster St 12—Durbrow & Hearne Mfg Co

### East of Broadway and Fifth Avenue

Beckman St 74—Jordan Bros Const Co  
 Bible House 78—Thos C Miller  
 Beaver St 42—Hanover Elect Co  
 Broome St 114—B H Weinberg  
 Broome St 434—The Globe Electric Contracting & Repairing Company  
 Cedar St 16—Wm Truswell & Son  
 Dover St 8—Hazazer Electric Co Inc  
 East Houston St 93—I Berkowitz  
 East 3d St 48—B Ackerman Co  
 East 3d St 136—H A Schreiber  
 East 5th St 416—Frank Bloom  
 East 8th St 4—J M Smith & Son  
 East 8th St 48—American Pressing Iron Co  
 East 13th St 2—B W Sandbach & Co





1882 1917

IN A BUILDING ON THIS SITE AN ELECTRIC  
PLANT SUPPLYING THE FIRST EDISON  
UNDERGROUND CENTRAL STATION SYSTEM  
IN THIS COUNTRY AND FORMING THE ORIGIN  
OF NEW YORK'S PRESENT ELECTRICAL SYSTEM

BEGAN OPERATION ON SEPT. 4, 1882

ACCORDING TO PLANS CONCEIVED AND  
EXECUTED BY

**THOMAS ALVA EDISON**

TO COMMEMORATE AN EPOCH-MAKING EVENT

THIS TABLET IS ERECTED BY

THE AMERICAN SCENIC AND HISTORIC PRESERVATION SOCIETY

THE NEW YORK EDISON COMPANY

Central Station Memorial Tablet Unveiled at the Recent Electrical Exposition  
and Since Erected on the Site of the First Edison Generating  
Station at 257 Pearl Street

*Supplement The Edison Monthly, November, 1917*





# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Fans, Blowers, Air Compressors (Concluded)

Sturtevant B F Co—50 Church St  
Typhoon Fan Company—1544 Broadway  
Western Elec Co—463 West St & 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Westinghouse Traction Brake Co—165 B'way  
Wing L J Mfg Co—352-362 W 13th St

### Fire Alarm Systems (Interior)

Auto Call Co—30 Church St  
Automatic Fire Alarm Co—416 Broadway  
Edwards Co—Exterior St Bronx  
Leveridge Chas W Inc—133 Liberty St  
Metropolitan Elec Protective Co—130 W 26th St  
Ostrander & Co W R—22 Dey St  
U S E M Co—221 West 33rd St

### Fixtures and Portables

Bayley & Sons Inc—101 Park Ave  
Benjamin Electric Mfg Co—114 Liberty St  
Black & Boyd—17 E 47th St  
Bullock Mfg Co—408-12 W 13th St  
Caldwell Co Edward F—36-40 West 15th St  
Dale Lighting Fixture Co Inc—107-9 W 13th St  
Falkenbach Mfg Co The—159 E 54th St  
Federal Sign System (Electric)—649 W 43rd St  
Findlay Mfg Co Robt—28 Warren St  
Fox Electrical Corporation—119 W 42d St  
Frink T P—24th St and 10th Ave  
Gleason Mfg Co E P—37 Murray St  
Goetz A E—55 Barclay St  
Harlem Gas & Elec Fix Co—157-59 E 128th St  
Heather Co The R C—19-21 W 36th St  
Kandem Electric Co Inc—49 E 21st St  
Knickerbocker Fixture & Electric Co The—325 W 42d St  
Lighting Studios Co—220 W 42d St  
Livingston & Co J Inc—70 East 45th St  
McFaddin & Co H G—38 Warren St  
McHugh & Son Joseph P—9 West 42d St  
Mayer & Co Leon—1304 Boston Road  
Metropolitan Elec Supply Co—126 W 36th St  
Miller & Co Edward—68-70 Park Place  
Mitchell Vance Co The—294 Madison Ave  
Morris Iron Works Elmer P—136 Liberty St  
National X-Ray Reflector Co—21 W 46th St  
N Y Gas & Elec Appliance Co—569-571 B'way  
Parker Co The Chas—32 Warren St  
Pittsburgh Lamp Brass & Glass Co—35 W 23d St  
Roeser & Heidelbergberger Inc—54 W 37th St  
Schoenberg R A & Co—906 6th Ave  
Shapiro & Aronson—20 Warren St  
Sibley & Pitman—19-21 W 36th St  
Silvestro C—4149 Park Ave Bronx  
Simes Co The—20 Rose St  
Sommer Lighting Fixture Co Inc—386 Second Ave  
Standard Lighting Fixture Co—61 Warburton Ave Yonkers N Y  
Sterling Bronze Co—18 East 40th St  
"Vase-Kraft" Studio—333 Fourth Avenue  
Wahle, Phillips Co—Park Ave & 40th St  
Walter G E—157 East 44th St  
Western Elec Co—463 West St and 105 W 40th St

### Street Fixtures

Adams Bagnall Co—114 Liberty St  
Central Foundry Co—90 West St  
Fox & Co John—253 Broadway  
General Electric Co—120 Broadway  
Morris Iron Works Inc E P—136 Liberty St  
Mott Iron Works J L—118 Fifth Ave  
Westinghouse Electric & Mfg Co—165 B'way

### Globes—Reflectors

Adams Bagnall Co—114 Liberty St  
Dealing William—1 Hudson St  
Fox Elec Corp The—119 W 42d St

Frink I P—24th St & 10th Ave  
Gillender & Sons Inc—19 Madison Ave  
Gleason-Tiebout Glass Co—200 Fifth Ave  
Haskins Glass Co—98 Park Pl  
Holophane Glass Co Inc—340 Madison Ave  
Hubbell Harvey Inc—30 East 42d St  
"Ivanhoe-Regent Works" of the General Elect  
Company—105 W 40th St  
Jefferson Glass Co—220 W 42d St  
Lighting Studios Co—220 W 42d St  
Macbeth-Evans Glass Co—143 Madison Ave  
Morgan & Sons John—61 East 9th St  
Northwood Co H—19 Madison Ave  
Organ Arthur—114 Liberty St  
Phoenix Glass Co—230 Fifth Ave  
Harry Pickhardt—98 Park Place  
Pittsb'g Lamp Brass & Glass Co—35-37 W 23d St  
Straight Filament Lamp Co—42 E 23d St  
Weeks Nelson—214 State St Brooklyn N Y  
Wilkinson Co—93 Underhill Ave Brooklyn N Y

### Heating and Cooking

American Elec Heater Co—Detroit, Michigan  
Bohn Elec Co C C—820 6th Ave  
Boker H & Co Inc—101-103 Duane St  
Cutler-Hammer Mfg Co The—144th St and  
Southern Boulevard  
Dover Mfg Co—30 Church St  
Federal Sign System (Electric)—649 W 43d St  
Fox Electrical Corporation—119 W 42d St  
General Electric Co—120 Broadway  
Guarantee Electric Products Co—47 W 42d St  
Hotpoint Electric Heating Co—147 Waverly Pl  
Hughes Electric Heating Co—Chicago Ill  
Johns-Manville Co The H W (Heating Pads)  
41st St and Madison Ave  
Landers, Frary & Clark Messrs—200 Fifth Ave  
Manhattan Electrical Supply Co—17 Park  
Place, 110 West 42d St, 127 West 125th St  
Metropolitan Elec Prod Co Inc—101 W 42d St  
National Elec Utilities Corp—103 Park Ave  
Pelouze Mfg Co—32 Park Place  
Phelps Mfg Co—2 Astor Place  
Pittsburgh Elec Specialties Co—412 8th Ave  
Prometheus Electric Co The—232 E 43d St  
Reimers Mfg Co—130 Church St  
Schoenberg R A & Co—906 6th Ave  
Sibley-Pitman Elec Corp—19-21 W 36th St  
Simplex Electric Heating Co—120 W 32d St  
Western Elec Co—463 West St and 105 W 40th St  
Wicks Electric Co—Cleveland Ohio  
Williams Roger—120 West 32d St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wood Electric Co C D—441 Broadway

### Ironing Machines

American Ironing Machine Co—46 E 41st St  
Apex Electric Home Appliance Co—457 Gold St  
Brooklyn N Y  
Fox Elec Corporation (Simplex)—119 W 42d St  
"Harton" Mfg Co—46 E 41st St  
Wallace B Hart (Roma) (Harton)—46 E 41st St  
Hurley Machine Co—147 W 42d St  
Roma Mfg Co—46 E 41st St

### Horse Clippers

Gillette Clipping Machine Co—110 W 32d St

### Low Voltage Direct Current Bell

### Ringers

U S E M Co—301 West 37th St

### Motors

### General Uses

Allis-Chalmers Co—50 Church St  
Barker John H—95 Liberty St  
Bogue Electric Co C J—513-15 W 29th St



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Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



*"At Your  
Service"*





VOLUME X

NOVEMBER, 1917

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## The Edison Monthly

### The Edison Monthly

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N F BRADY, President  
JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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It meant war, and it meant business; and it meant the business of war: preparation for action abroad, conservation at home. Such was the Electrical Exposition of 1917, held during the second and third week of October.

It would have been impossible for any one with the average faculties of perception to visit this exposition and to come away only to say, "The same as last year," although, in point of fact, it was the eleventh annual exhibition of this kind.



But, very distinctly, it was not the same. Evidences of this were to be seen on every hand, as, for instance, finding the entire third floor in the possession of the Red Cross in place of the usual extensive demonstration of the city's vocational schools. Definitely militant exhibitions were there too, provided by the Army and Navy, but similar representations have been part of the exposition before. The chief difference was in the attitude of the audience. Crowds have watched such exhibits before, drawn there by curiosity and interest. This year, though, the crowds were no longer in the same holiday humor. Curiosity had turned to thought and feeling.

These displays—Army, Navy, Red Cross, conservation—meant something different now; they were something that concerned us, the people of the United States.



A young man stood near the Navy corner, his eyes fixed a long while on a Whitehead torpedo on exhibition; it bore an explanatory card telling, among other things, that a single torpedo cost \$7900. After a while, the young man turned to his companion and said quietly, "It would take me six years to earn the price of one torpedo."

As never before, the visitors were using this exposition as a way of taking stock of the nation, of reckoning our assets of materials and energy, and setting them off against the heavy task which the nation has pledged its honor to finish.



The fitness of the Electrical Exposition to serve as a medium for this review of national resources is indicated by the support given by the Government in the shape of exhibits representing the activities of various Government departments. At a time when all Federal bureaus are being pushed to the uttermost to fulfill their part of the country's war program, the authorities recognized the value of the electrical show as a channel of public information and were ready to use it as such.

It might be said that the Electrical Exposition took stock of national assets in three ways, pointing out their original source, their utilization and their conservation, as this affects the



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electrical industry or is affected by it. Thus, the Government Bureau of Forestry pointed to the origin of much of the country's electric supply, —water power. But its function is not limited to conservation only; the national forests must be employed properly for their own and the nation's benefit. And the exhibit told how the forest acreage secured not only a power source but also provided timber, pasturage for millions of sheep and homestead sites for agriculture.

In the manufacture and distribution of power, the central station, naturally represented in the Electrical Exposition, is the agent. Its function as conserver is too well known for elaboration here; briefly, the central station requires less fuel for a given output of energy than several smaller plants, no matter how efficiently they may be managed.



Where utilization is concerned, electricity becomes practically universal. It would indeed be difficult to point out a single war industry, from the making of munitions to the fashioning of uniforms, which is not largely dependent on electricity.

An unexpected example of this was brought to view in the display of the Lighthouse Service, which, though not to be considered as a war industry, is certainly affected by the war. Visitors will remember a blazing ray, like that of a huge searchlight, which flashed through the building. It came from an ordinary 250-watt lamp such as any one might have, but placed in a very unusual reflector, the new, American-made, round glass lens of the Lighthouse Service. (To have

used a stronger lamp with this lens would have blinded the crowds thronging the aisles.) The style of lens is not new in itself, but until recently it was impossible to get one in this country. With the European supply cut off, the Government appealed to American manufacturers of glassware. This intricate, many-faceted lens, shown for the first time at the Electrical Exposition, was produced at the Pittsburgh factory of one of the leading makers of electric-light shades, at a cost of \$4,000. The feat was considered sufficiently important to warrant a visit to the Exposition by the Secretary of Commerce.

Another little device, an electric cloth cutting machine, known to the garment industry, made its first appearance at the Show. This is a sort of pocket buzz-saw, the buzz being supplied by a small motor, turning a knife, in the form of a circular metal disc. The contrivance has been used for some time by enterprising clothing manufacturers and now finds place as well in the Red Cross work-rooms.



By a curious coincidence, this, the most significant of the electrical expositions, served also to commemorate the thirty-fifth anniversary of the introduction of central station electric supply in New York City, at the hands of Thomas A Edison. It was in the early fall of 1882 that current was first turned on over the wires of the company that was later to become The New York Edison Company. Fittingly, the bronze tablet marking this event, which is to be placed on the site of the original station, was unveiled at the Electrical Exposition.



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*Photographic Bureau of The New York Edison Company*

**The Mountain of Light**

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### The Mountain of Light

You hear a lot of the Great White Way,  
Where the big signs glare and the taxies play,  
Up in the heart of the mighty town,  
But there's something better lower down  
Where streets are narrow and buildings high—  
So tall, indeed, that the sky is nigh  
To the roofs of some when clouds hang low  
And touch the Mountain of Light below;  
Where a million lamps in long relays  
Brighten the cliffs with their sparkling rays.  
From the huddle of brick and steel and stone  
The Mountain of Light stands out alone  
Like the vision drawn from a Prophet's dream  
When Jacob slept in the ladder's gleam  
And Seraphs walked from the heavens wide  
To stand at the slumb'ring shepherd's side.  
The canyons dark are lost to view  
In the golden lime of a city new  
That comes with night at the close of day—  
Better by far than the Great White Way.

*Don C Seitz*



# Real Wireless

WHEN, where, and by whom signals were invented are questions which cannot be answered here. Signs are made by animals, and human signs are understood by them, but signals—that is another matter. The word trails off into the geological past with misty suggestions. Yet it has a more or less definite connotation. He who signals communicates with another who is beyond the range of the human voice or at a time when it is inadvisable to employ the ordinary means of verbal communication. Hence it is not surprising that the word "signal" is associated in our minds with the unusual, the novel, the dangerous; and as a matter of fact its established uses are those of warfare, although signals have been employed for many other purposes.

The element of secrecy is also inseparable from the thought of a signal. Thus the ringing of a church bell calls

the worshippers together, but it is not a true signal, though it has often been converted into one in time of danger. For a true signal does not take the public into its confidence; it is designed only for the select few who are aware of its specific purpose and who can interpret the sense symbol. Even a warning signal which renders some dangerous piece of machinery "fool-proof" is not a message to people in general, but rather to those who rashly court the destruction that lies in whirling steel.

Judged by these and other requirements, the first military signals, which are said to have been made by the human voice, doubtless proved a very untrustworthy means of transmitting orders and other intelligence. To say nothing of contrary winds and "thick weather," the word of mouth message, projected from sentinel to sentinel over hundreds of miles, must often have arrived at its destination



Frieze Showing Torch Signalling from Ancient Wall Towers



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in a curiously distorted form. Yet by these means Xerxes established a line of communication from Greece to Susa, sending messages at the rate of 480 miles in two days, and by the same method the news of the massacre of the Romans at Orleans was brought to Auvergne between sunrise and sunset, the distance being one hundred and twenty miles. Such crude meth-

ods of communication do not properly constitute signalling, which requires for secrecy the translation and interpretation of the message by a code or a system of signs agreed upon by the sender and those with whom he communicates. And the same may be said of all direct methods of transmitting information verbally or by writing, both ancient and modern, whether the medium employed be a carrier pigeon, a balloon bomb with its concealed letter, or the wireless telephone.

But true signals all peoples seem to have had, and one of the simplest for use by night was the beacon. By fires kindled upon mountain tops the news of the fall of Troy was brought to Clytemnestra, wife of King Agamemnon, and by the same reliable method the coming of the terrible Saracen was announced at Constantinople where the last in the chain of fires which had blazed across Asia Minor was lighted in the imperial pharos of the great city. At the expense of the royal treasury, or in obedience to the imperial order, fires were maintained upon the principal



*Drawn by Edna Hood Lissak*

Early Greek Device of the General Polybius

headlands of the Roman provinces that the royal triremes might navigate in safety and the shipping interests of the imperial city be conserved. By a sign of fire set up in Bethhaccerem the children of the tribe of Benjamin were warned by Jeremiah to flee out of the midst of Jerusalem, and in the Bible there occur many other references to the beacon, which was frequently employed by the Hebrews, Persians, and other ancient peoples. Beacon fires, too, announced the approach of the famous Spanish armada, and in America, during the Revolution, a line of such fire signals was maintained across New England and the Hudson Highlands to New Jersey and Pennsylvania. Earlier still the beacon had been used to warn the colonists of the approach of hostile Indians, and from one of these beacons, established as a signal in Boston five years after the founding of the city, Beacon Hill derives its name.

Nearest of kin to the beacon is the torch, which, because of its mobility, possesses the true elements of the signal. The Romans used it as a sig-



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*Drawn by Edna Hood Linnak*

Semi-Modern Semaphore Signals on Top of Roman Fire Tower

nal of attack, which was given by the priests of Ares who threw lighted torches in front of the foremost ranks as a sign that the advance was to be made. But there is also evidence that torches played an important part in the system of long-distance signalling, invented, so it is said, by the Greek philosopher, Democritus, but improved and made matter of historical record by the general, Polybius. The apparatus at each signal station consisted of five upright posts and a screen or fence at each end of the row of posts. Behind these screens were kept ten lighted torches, and upon the posts were arranged across five columns the letters of the Greek alphabet.

At each station were fixed two tubes, so placed that by looking through the left-hand tube only the corresponding fence at the next station could be seen, while by the right-hand tube the opposite fence was visible. Signals were made by raising above the left-hand fence one or more torches to correspond with the number of the column to be read at the next station, while the letters

were indicated by torches shown at the right-hand fence. Thus the letter C would be indicated by three torches to the left and one to the right, O by five torches to the left and three to the right, M by three to the left and three to the right, and E by five to the left and one to the right. By this somewhat laborious means of communication a considerable amount of time would be consumed

in spelling the word *come* (or its Greek equivalent), and the method, though flexible enough, since no code was required, must often have proved impracticable. The device constituted, nevertheless, a true system of signalling by night, and it was extensively employed by the Greeks, who, in connection with their armies, had special signal corps trained in its use. In the early part of the nineteenth century it was revived in altered form by an English clergyman, who used pauses between the flashes for posts and letters, and transmitted messages with a single torch a distance of forty miles.

Quite as complicated as this system of signalling described by Polybius were the day signals whose existence is vouched for by Æneas, writing about the year 360 B C. The materials consisted of earthenware cylinders, four or five feet high and a foot and a half in diameter. Upon a stick, which fitted into a cork of smaller diameter than the cylinder, were cut or marked the characters which corresponded to the messages of a pre-



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arranged code, and the receptacles were so constructed that with a given amount of water in each of them identical characters would be read from the sticks at the top of the cylinders. When a message was to be sent from one station to another, a fire signal was given, signifying that water was to be let out of the vessel at the receiving station, while a second signal indicated that the flow of water was to be stopped. The characters which then appeared at the rim of the cylinder at the receiving station indicated, when translated from the code, the message which had been sent.

Among the ancients, who left little record of signalling by day, pre-arranged messages were sometimes conveyed by flags, banners and shields, the last being used, it is supposed, after the manner of the heliograph to reflect the sun's rays. Standards elevated or depressed, or borne in other positions, regulated the movements of the Roman troops, but apparently methods of flag signalling over long distances were unknown. In fact, in the matter of daylight signalling the American Indian, who utilized his camp fire as a means of transmitting messages to distant friends, displayed greater ingenuity than the civilized Greek or Roman. By the simple expedient of blanketing and quickly uncovering his fire he would expel from it rings of smoke which, when read by code, constituted a message visible at a distance of more than twenty miles. According to the usual code, one smoke ring signified "danger," two smokes "a camp here," while three smokes from fires built close together conveyed a

warning. Better still by night was the Indian's fiery arrow, made by coating the head with gunpowder and powdered bark, the message conveyed by its fiery line informing friendly Indians of the situation. Its modern substitute is the rocket, while the smoke cloud also survives as an important method of signalling in modern warfare. Smoke clouds, consisting of fine black dust, may be produced by turning the exhaust of a motor into a vessel containing lamp-black, and by lengthening or shortening the puff may be adapted to the Morse code, as shown some years ago by James Means, an American inventor living in Boston.

The Means method has been used by the French during the past few years, and similar modes of signalling have been employed during the present war for transmitting messages from aeroplanes. But the difficulty of carrying the apparatus sets limits to the usefulness of this method of transmitting military intelligence.



*Drawn by Edna Hood Lissak*

The Jar and Torch System of Aeneas



# Lamping the Alimony Club

FOR years Ludlow street jail has been a synonym for the old-fashioned in prison buildings. Admittedly it is an old structure, comparatively speaking, for its erection took place in the days before the Civil War—in 1859-60, to be exact. When first built as the successor to the old Eldridge street jail or "Debtor's Prison," it was considered a model among county jails; but so rapidly have building ideals changed that its arrangements have become more or less obsolete, while it has indeed been behind other public structures in the acquisition of all the conveniences of modern life.

But several changes in equipment within the past few years, together with the recent installation of electric lighting, have brought it into the category of the up-to-date. Taking this into consideration, and inspecting the structure impartially, Ludlow street jail is found to be, after all, by no means a building unworthy the illustrious county of New York; and in one respect at least, that of light and ventilation, quite unsurpassable.

## *An Imposing Structure*

"From the exterior," Bill Nye once said, "Ludlow street jail looks somewhat like a conservatory of music." Not all would think this an accurate comparison; but, set in a lower East Side neighborhood, it does rear itself to a height of sixty-five feet with considerable impressiveness. Constructed of Philadelphia brick, with limestone trimmings, and with tall grating-covered windows extending to

the roof, it has a strength and a solidity of appearance that many modern buildings lack.

Upon entrance, the door, Nye says, "is closed after one and locked by means of an iron lock about the size of a pictorial family Bible." At the right of the hallway are the grating-partitioned offices where many successive wardens have administered the affairs of this compulsory abiding place. An old bulletin board on the wall harks back to the first years of the structure, save that from time to time names have been rubbed out to be replaced by those of new appointees. Here also is carried on the work of registering the occupants of the jail, and across the broad sill of one of the windows a long board resting on two supports accommodates the huge ledgers in which each name is entered safely and securely no less than eighteen times. On this same floor the warden has his quarters and here, too, is the reception room where prisoners meet their friends.

The cell block is reached by a winding iron stairway. Quaintly enough, this is separated into the "United States Side" and the "City Side," the former having once been used for Federal prisoners who up to 1904 were frequently brought here for confinement. Such is no longer the case, but this part of the building is rarely used now, the former City Side affording sufficient space for the occupants committed on civil charges and for reasons which have given the jail the jocose title of the "Alimony Club."



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On each side of the cell block, four tiers of cells rise above the ground floor, one directly above the other, with balconies leading past them on the several floors. Situated with their doors and windows immediately facing the long outside windows of the building, an abundance of air is assured. On the ground floor there is one room quite without air or light, known paradoxically as the "cooler" and used in the bygone days of less humane treatment as the place for temporary abode of refractory criminals. Also on the ground floor, and displacing for a space the lower cells, is an open hall-like space where the prisoners may meet for games or reading and writing.

If one were in doubt of the strength with which the building has been constructed, he need only descend into the cellar where the heating plant is located. Massive masonry arches,

forming vistas in all directions, seem stout enough to support a mediæval castle, and the excellence of their construction compels respect for the builders of the past century. Extending under the entire building, ample room is thus afforded for many storage needs, from fuel supply to the foodstuffs that are later prepared in the large and well-equipped kitchen.

It is evident from its construction that Ludlow street jail is distinctly not a place to be easily and voluntarily left, but there is one place where its occupants have nevertheless something of the freedom of the out-of-doors. This is the large walled-in yard back of the jail and surrounded on its three sides by a high and quite unscalable wall. After all, it is not fair to call this a yard; rather it is a pretty and well-kept little park, with tall privet trees at either corner of a green grass plot,

a low privet hedge behind an iron rail and rows of comfortable benches. With the old red wall of the building rising sheer behind, and peaceful seclusion afforded by the walls on either hand, one almost thinks he would not mind too much even a little compulsory sojourn in a place which provides such a peaceful and pleasant spot. At least it goes very far toward relieving the tediousness of of a club life that is not altogether voluntary.



*Photographic Bureau of The New York Edison Company*

"The Ludlow Street Jail Looks from the Outside Like a Conservatory of Music," Said Bill Nye. In Any Event It Is an Imposing and Well-built Structure



## The New Color Lighting

THE development of electric lighting has been so rapid and the call for it so widespread that considerations other than utility have hardly had time to enter in. If the illumination is adequate and the design of the fixture is reasonably in keeping with its surroundings, enough is usually felt to have been derived from current as a lighting medium in the big majority of cases.

However, progress in lighting as in anything worth while is never at a standstill. With the factor of utility as well in hand as it is at present, there introduces itself a new aspect of electric illumination that aims not so much to help one to see as to help him to feel.

In other words, the varied effects of color upon the human make-up that have been recognized and used for centuries have today found a new means of emphasis in the electric light. Miss Beatrice Irwin, who has made this application, has made also a far-reaching study of such color effects and done much through personal investigation to round out the science.

The medium used is specially treated manuscript upon which color is laid as circumstances require. These circumstances class themselves under three heads. That is to say, the effect is stimulative, recuperative, or sedative. Whether or not one realizes it at once, light passed through a screen of pale greenish tone gives him to a relative degree a sense of



*Photographic Bureau of The New York Edison Company*  
A Sedative Lamp by Which One May Read Comfortably

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stimulus. The same is true of red in certain values. Yellow and orange with pink are classed as recuperatives. Blue of the darker casts ranging to purple produces a feeling of restfulness that is hard to describe. Such are the broad lines on which the spectrum is being employed. However, intermediate tones and shades play their parts in intricate variety.

The several shapes in which these color screens are formed have also much to do with the effect intended. A long, slender cylinder which characterizes the blue and purplish screens has been found after careful research to be at variance with the green- or rose-toned motifs. The former of these adopts an inverted cone or a shallow eclipse. The latter is found in broad drum-shaped cylinders. Peculiar suggestions of wave or flame outlines appear in cut-outs at the top or in shadow forms run on the surface by manuscript overlays.

In every case, except in the green where the screens are pendent, a standard is provided on which the cylinder rests, or swings, perhaps, from a support between uprights. The electric cord is introduced at top or bottom, and the lamp of suitable wattage hangs in a frame or pocket of



*Photographie Bureau of The New York Edison Company*  
Recuperative Lamps of Cone and Cylinder Designs

treated wood. These standards as well are frequently works of art and blend in tint with the screen they are supposed to accompany.

Enough possibly has been said to give the reader some idea, at least, of this intangible subject. It is decidedly a case where feeling and little else can be believing. The experiment may be made at our fixture showroom at 124 West Forty-second street.



## A Close-down that Talks

**F**EW adoptions of Edison Service say more than its recent instalment in the Commercial Cable Building. The location of this building at 20 Broad street and its reputation as an office structure of the front rank make it imperative that the electric service supplied tenants be of the highest quality. While the property has all along been served by a private generating plant, once the inefficiency of this supply was shown by careful estimates, a change to that of the Central Station was determined on without hesitancy.

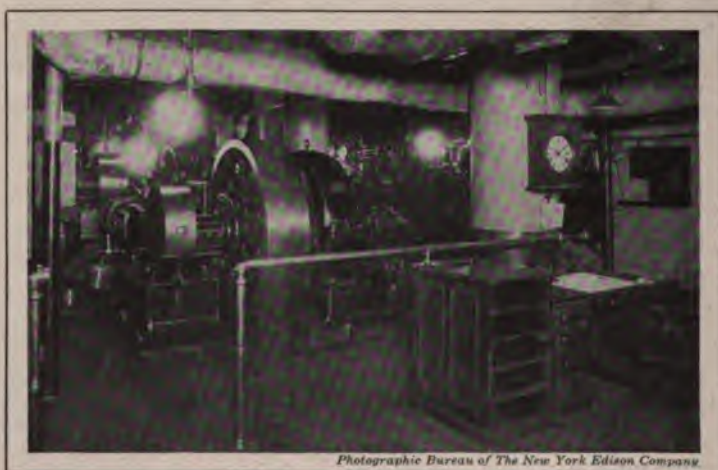
Tests extending over a long series of operations and made by Edison engineers resulted in figures the definiteness of which could not be doubted. Edison service was proved in this manner to be not only more economical but more dependable for the severe demands the character of the tenancy involves. Ten rapid-traction elevators, six in the main building

and four in the annex, together with the usual pumps and incidental apparatus, require motor service to the extent of 325 horsepower. The lighting equipment totals an installation of 4500 incandescents. These elevators enable tenants in any office to reach the Stock Exchange floor in less than two minutes.

While surprisingly little current is required to operate the cables which connect with this building for foreign traffic, Edison service on the score of its dependability is, of course, an important factor. The electricity needed for this purpose is supplied from batteries which in turn are charged from the Central Station. Energy is thus forthcoming from the Edison system for the transmitting of the daily load of foreign messages. Auxiliary cables owned and operated by the same company land at Far Rockaway from which point traffic is telegraphed to and from Broad Street.

The bulk of the business, however, is done from the Cable Building.

No less than nine cables of this Company lead from the shore station and Broad street to Europe and the South. When the business was begun in

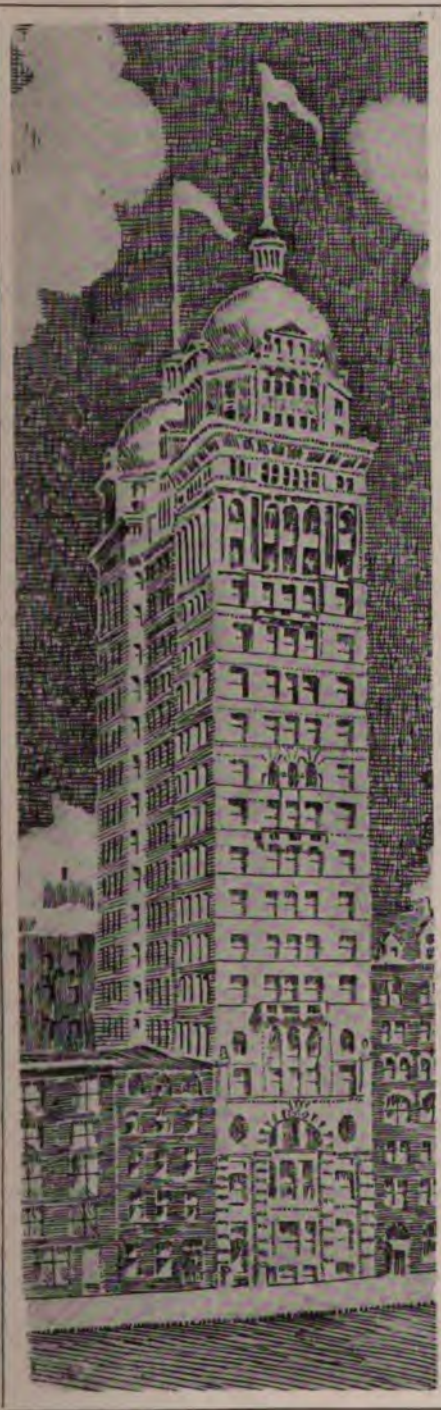


*Photographic Bureau of The New York Edison Company.*

View of the Private Plant Recently Displaced by Edison Service



## The Edison Monthly



The Commercial Cable Building

1884 two transatlantic cables were laid between Nova Scotia and Ireland, one between Nova Scotia and New York, and one two-conductor cable between Nova Scotia and a point near Boston. Early in '85 a two-conductor cable was laid between Ireland and England and another between Ireland and France, a total of 7,762 miles.

In '94 the Company provided a third cable between Nova Scotia and Ireland. The first year of the century saw a fourth cable laid between these points via the Azores, together with another from Nova Scotia to New York and a second from Ireland and England.

Pacific service connecting from San Francisco with the Orient via all important island points was got under way two years later, an extension altogether of 10,010 miles. A fifth transatlantic cable was laid three years after this between Nova Scotia and Ireland, and in 1905 the Company laid one between New York and Havana. One of this concern's transatlantic cables was diverted in 1909 from the Flemish Cape, a point in the Atlantic, into St John's, Newfoundland, while a new cable was provided from the latter point direct to New York. A second cable between these cities has since been completed. The Atlantic system of the Commercial Company today totals 18,337 miles, and its lines of communication extend from Europe to China.

The time occupied in sending the original message over the Atlantic cable on August 17, 1858, was 25 minutes. Such has been the growth in cable efficiency since that time that a similar message can be transmitted at present in less than one minute.



# The Apollo Institute

THE use of electro-therapeutic devices by private physicians and hospitals has grown so common of late that the absence rather than the presence of one or more of them in a modern equipment is exceptional. But, general as their use has become, there never, until very recently, has been developed an institution devoted solely to this method of treatment. The Apollo Institute at 62 West 88th Street is such a development, its founder—Dr S C Grudberg—having long been a specialist in electro-therapy in the better known hospitals. His idea and

the purpose of his institute are to provide a thorough means of electro-therapeutic treatment for the many cases which hospitals and private practitioners judge to be in need of such methods. The fact that no such establishment has been put forward until now points to the customary and commendable conservatism of the profession rather than to any lack of proof of the great usefulness of this apparatus.

The equipment is assembled here amid congenial surroundings. Indeed, if it were not for the cases containing the various mechanisms



*Photographic Bureau of The New York Edison Company*

Auto-Condensation and Thermic-Penetration Machines

## The Edison Monthly

referred to and at times some device or other which nature never provided with any such casing, the several rooms of the institute might be taken for the reception and lounging rooms of a well-appointed club.

On the main floor and in an apartment at the rear of the waiting room, a number of these contrivances stand along the high wainscoting. Here, for one thing, is the latest type auto-condensation machine. As the reader may possibly be aware, the low amperage and high potential used in this treatment have proved excellent for the reduction of blood pressure and general neurasthenic conditions. A thermic penetration machine comes next, an invention by D'Arsonval. Such penetration gets into, and gets the kinks out of, the stiffest and most rheumatic joints. One of the celebrated ultra-violet lamps is included in the equipment of this section. As the profession realizes, this is a lamp which proves invaluable in skin-disease work.

The X-ray of course takes a prominent part among the methods employed. There is also a portable high-frequency and X-ray coil permitting, among other modalities, the vacuum electrode, the static spark, and Tesla current and radiographic work. A non-portable high-frequency coil is

provided for neuritic and rheumatic treatment and the removal of cancerous and allied growths.

The floor above is furnished and decorated with the same unsuggestiveness and good taste as the first. Cretonne and wicker, in fact, give a decidedly homelike impression. Much emphasis is placed here upon the Bergonie apparatus for the treatment



The Famous Bergonie Apparatus for Obesity

of obesity. The patient is seated in what is apparently a big chair of the Mission type, while metal plates are applied through which current is passed. The effect is a more or less rapid exercise of the muscles.

A Niles Normalizer, also for obesity treatment, is in the shape of a couch on which one disposes himself while bands of wooden and rounded slats are drawn electrically back and forth over the part to be treated. Here too is discovered a multiplex sinusoidal apparatus for administering the various forms of sinusoidal and galvanic



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*  
Electric Bath Cabinets and Electric Douche Apparatus

currents. This sort of thing has been found effective for all forms of paralysis and muscular atrophy. Vibratory massage is also given in this department.

An easy couch alongside a big cozy looking fireplace is where the patient suffering from tubercular, kidney, or chlorotic affection takes his medicine in the form of rays from the famous Heræus Alpine Sun-Ray Lamp. Cures are often made by this means in cases of neuralgia and sciatica by rendering the patient immune against toxins and by improving his general health.

The Kromayer Lamp for deep-seated penetration is employed in the removal of scar tissue, cancerous growths and other similar developments. The equipment of this

department embodies an electro-therapeutic lamp, a 500-watt incandescent globe with a big reflector. This is intended for general electric light treatment.

Other sections of this remarkable institute are furnished with ovens for the "baking" of affected limbs and joints together with apparently simple but no doubt complex devices of straps and springs

and slats for fat reduction and whatever else one's "exterior semblance" may need in the way of strengthening or embellishment.

Great stress is laid upon the electric bath which is given a whole department. Electrically controlled shower baths, or what more properly are termed Scotch and Perineal Douches, favor one with shower and needle-spray effects in bewildering variety.



*Photographic Bureau of The New York Edison Company*  
Therapeutic Baking Ovens with Obesity Treatment Devices in the Background

# A Great Anniversary Exposition

THE Electrical Exposition of 1917 formed the background for the celebration of the thirty-fifth anniversary of the beginning of New York's electric lighting system. It served also to portray another year of progress in the electrical industry and to illustrate the relation of electricity to the carrying on of the War.

Many new applications of electricity developed during the past year were demonstrated among the com-

mercial and industrial displays, while another feature of the industrial exhibit was that which showed the various types of war supplies which are made by electric motor and under illumination provided by special types of lamps.

A prominent feature of the exhibits in the anniversary celebration was the model of New York's first central station and a film which pictured the life of Edison. The exer-



*Photographic Bureau of The New York Edison Company*

The Life of Edison in Moving Pictures Was One of the Popular Attractions at the General Electric Company's Display



## The Edison Monthly

cises commemorating the anniversary were held on October 18 and were attended by many central station men who were associated with Mr Edison in the early days of the Pearl street station. A bronze tablet which marks the now historic site at 257 Pearl street was unveiled. Among the

New York Edison Company. The tablet bears a bas-relief showing the generators in the old station and an appropriate inscription. It is erected jointly by The American Scenic and Historic Preservation Society and The New York Edison Company.

As in former years, several depart-



*Photographic Bureau of The New York Edison Company*

**The Story of the United States Navy Was Told by Means of Models Which Traced the Whole History of Uncle Sam's Fighting Vessels**

speakers on this occasion were Borough President Marcus M Marks; Dr George F Kunz, president of the American Scenic and Historic Preservation Society; John W Lieb, president of the National Electric Light Association; Dr Edward Hagaman Hall, secretary of the Scenic Society; Reginald Pelham Bolton of the Scenic Society, and Arthur Williams of The

ments of the Federal Government participated in the show. The exhibits by the Army and Navy were especially interesting because of their timeliness. In conjunction with the Army and Navy exhibits there was held a contest in semaphore signaling for teams from any branch of the service. The men from the U S S Texas carried off first honors, sending a code



## The Edison Monthly

message and an appeal for recruits and the Liberty Loan in the good time of 3 min and 13 sec. The Naval Reserve Force from the Brooklyn training station was second, a team from the Mine-Sweeping Station was third and the signal men of H Company station at Fort Wood fourth.

Red Cross last spring to see one of the ways in which their gifts are being expended. The first aid station illustrated another phase of Red Cross work. In addition to these displays there was a motion picture theatre where films taken on European battlefields were shown. A membership



*Photographic Bureau of The New York Edison Company*

**The Manufacture of Felt Hats and the Preparation of Sugar Were Two of the Exhibits Arranged by the Yonkers Chamber of Commerce and the Yonkers Lighting Company**

The American Red Cross showed application of electricity to the work of overcoming war's destruction. The Red Cross workshop was in operation all day and surgical dressings, bandages and other supplies were made for shipment to Europe. Such a display afforded an unusual opportunity for those who contributed to the One Hundred Million Dollar Fund of the

booth and an information bureau were maintained, while a tea-room was open from 3 until 10 P M. Recruiting posters and flags of the Allied countries and a display of shell cases of various sizes completed the display. These shells point out the enormous amount of skill expended in the war and the need of increasing activities to keep up with the destruction.



# The Edison Monthly

## Government Exhibits

**Census Bureau**—The feature of this exhibit was an electrical computing machine shown to the public for the first time. It records the names, nationality, age, race and occupation of 650 persons a minute.

**Lighthouse Service**—The first public exhibition of the Lighthouse Service of the Department of Commerce formed a display which created great interest inasmuch as few are really familiar with this phase of the Government's work. Models of the newest lighthouses and buoys were on view as well as many new electrical contrivances that aid in safeguarding the sea and serve to protect the world's shipping. Powerful searchlights whose rays make it possible to discern ships in distress at great distances were also included in the exhibit.

**New York State**—An excellent opportunity was offered visitors to familiarize themselves with the



Photographic Bureau of The New York Edison Company  
Another Appliance Demonstration



Photographic Bureau of The New York Edison Company  
A Model Studio Lighted with Cooper Hewitt Lamps

methods employed in the construction of the State Barge Canal. How the obstacles were overcome and the work perfected proved intensely interesting. Models of syphons and locks and other features of the operation of the canal were exhibited.

**Public Roads**—The Public Road Bureau exhibited models of different types of roads. This exhibit showed the grading and surface finishing of roads. A model roller was shown in operation.

**The United States Food Administration**, which as part of its campaign for the conservation of food is enrolling the women of New York as members of the Administration, established a demonstration kitchen and an enrollment booth at the Exposition. In addition to showing graphically the work the Administration is carrying on there were a series of lectures and demonstrations on the different aspects of food saving.

**The United States Department of Agriculture, Bureau of Chemistry**, had a booth in connection with the Home Economics exhibit. Representatives



## The Edison Monthly

of this Bureau conducted demonstrations and lectures illustrating the many ways of conserving the wheat supply.

*U S Forestry Service Exhibit*—This exhibit showed the importance of forest conservation. An erosion model was provided which showed the action of the water on the hills and mountains. The proper and improper ways of logging were illustrated, and the importance of the utilization of the wood-waste was explained.

*United States Army*—The extensive war use to which electricity has been put during the past year was revealed in the Army's exhibit, where were shown the most ingenious appliances now being used by the Allies for both trench and air warfare. A portable radio equipment which is carried on the backs of mules in the mountainous regions and a portable trench telephone now being used on the European battlefields and many other new electrical devices playing an important part in the world conflict were on view.

*United States Navy*—The revelation of any new methods or inventions to combat the submarine and especially a public exhibition of them would not, of course, be sanctioned by the Government, but the Navy's section of the Exposition included

two models of the latest submarines built in this country, as well as seven models of battleships. Two of the latest types of torpedo-boat destroyers were also displayed.

*Weather Bureau*—One of the most interesting exhibits at the Exposition was that of the Weather Bureau, where various instruments were displayed showing how the rain and snowfall are measured. Storm indicators and recording theodolites besides records of the sunshine and numerous other storm records were also shown the public.

*The Bureau of Chemistry* of the United States Department of Agriculture had charge of a booth in connection with the Home Economics exhibit. During the ten days of the show, a Government expert conducted a series of demonstrations and lectures illustrating the many ways of conserving the wheat supply. The importance of these lecture was attested by the crowds attending daily.



*Photographic Bureau of The New York Edison Company*

A Painting of the Barge Canal, with Models of the Locks, Were Featured at the New York State Display



## The Edison Monthly

The State's Relation Service of the United States Department of Agriculture had charge of a canning kitchen where the best methods of canning vegetables and meats were shown. This exhibit was of particular value to those interested in the present food situation, in that it taught methods of preserving not only the perishable foodstuffs, such as vegetables and fruits, but also how to preserve any left-over foods for future use in the forms of soups, stews, potted meats, etc.

### Commercial and Industrial Exhibits

*The Alpha Electric Company, Inc.*, jobbers of electrical material, exhibited the Royal electrical suction cleaners, vibrators, and hair dryers. The Royal specialties are manufactured by the P A Geier Company of Cleveland.

*The American Ironing Machine Company* demonstrated Simplex machines



*Photographic Bureau of The New York Edison Company*

Mercury-vapor Lamps Were Shown by the Cooper Hewitt Company

ery in practical operation as used in the home. Various pieces and garments were ironed to show how great a portion of home laundry work can be ironed on these machines.

*The American Pipe Bending Company* showed a piece of apparatus for bending all sizes of metal pipes.

*The Baker R & L New York Corporation* showed an electric car of the type which recently made the New York-Atlantic City trip. It is an R & L BX7 model. The return trip was made from Atlantic City to New York in five hours and fifty-eight minutes running time.



*Photographic Bureau of The New York Edison Company*

The Electric Kitchen Where the Motor Does All the Hard Work

## The Edison Monthly

*The Bakery*—A motor-driven bakery installed by Jaburg Bros and operated by The Fleischmann Co demonstrated the different processes of war-bread baking.

*The exhibit of the Behning Piano Company* consisted of grand and upright pianos and player pianos and in particular the Behning Art Electric reproducing instrument. This is an electrically operated piano which reproduces the playing of the world's greatest artists.

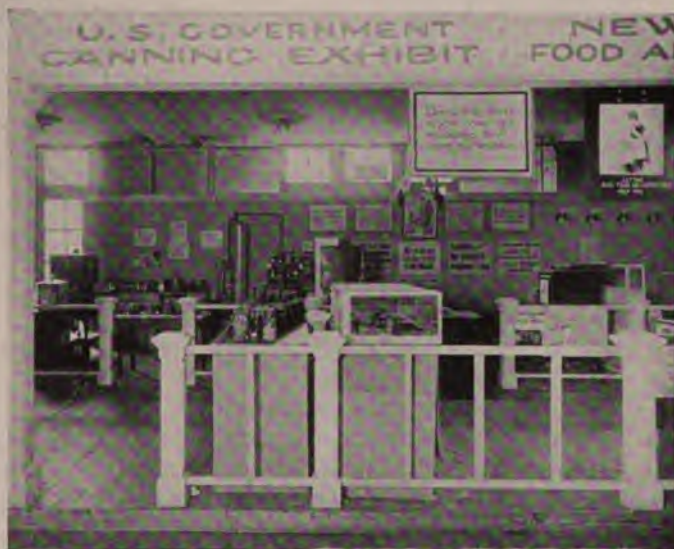
*The Bell Electric Motor Company* featured single-phase compensated type polyphase and direct-current motors in its exhibit. These motors are of the most efficient models and are adaptable to a great variety of uses.

*The Benjamin Electric Manufacturing Company's* exhibit consisted of the well-known Benjamin No 92 plug, No 96 current tap and other household devices as well as industrial lighting fixtures, panel boards and automobile accessories. Several types of steel-enameled industrial fixtures were also displayed.

*C C Bohn Electric Company*—At this booth were seen the latest domestic and commercial heating appliances.

These included irons, percolators, toasters, samovars, grills, radiators, etc.

*Brokaw-Eden Manufacturing Company*—The "Eden" washing machine does not rub the clothes—it souses them up and down in the hot suds. The mechanism of this admirable de-



*Photographic Bureau of The New York Edison Company*

Preserving and Canning by Government Experts Proved Helpful in the Food Conservation Effort

vice proved of endless interest to housekeepers.

*Burdick Cabinet Company*—The Burdick electric-light bath cabinet and Burdick applicators were shown by this company, as well as the high-frequency apparatus made by the Thompson-Plaster Company.

*Campbell Electric Company*—This concern, under the management of the J W Hughes Company, duplicated the exhibit that received the highest honors at the Panama Exposition for X-ray and high-frequency work.



## The Edison Monthly

### *Commercial Electric Sign Company—*

This exhibit included the glass panel, the sunken groove and the raised panel types of signs. These signs were also shown in sections with the flasher by which they are operated.

*Consolidated Telegraph and Electrical Subway Company* showed the method of underground construction in New York City by which electric light and power cables are carried beneath the surface of the streets. The exhibit demonstrated the manner of distributing electric current from a sub-station to the consumer.

*The Cooper Hewitt Electric Company* had on view various articles made by the several manufacturers throughout the country in whose plants Cooper Hewitt lamps are used.

*The Dairy*—This joint exhibit by the Borden's Farm Products Company, Inc, and the DeLaval Separator Company showed the operation of



*Photographic Bureau of The New York Edison Company*

Elevator Problems Were Explained by the Otis Elevator Company

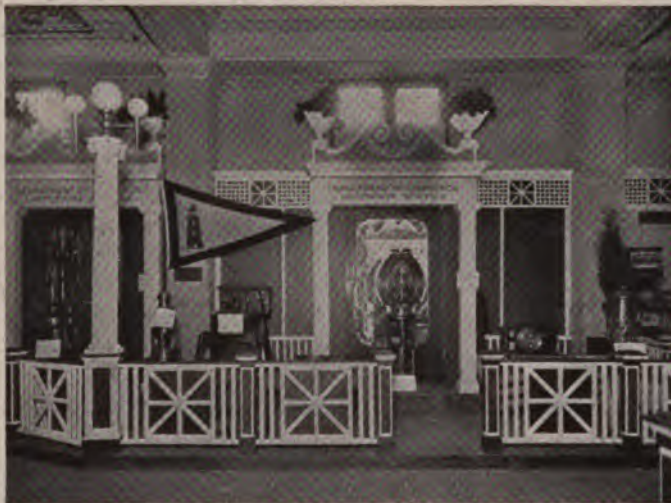
modern milking machines on real cows. The six fine cows in this exhibit came from one of the seven large certified milk farms owned and operated by the Borden Company. The milk produced on these farms is as good as it is possible for science and human energy to produce.

### *The Dover Manufacturing Company—*

The exhibit here was made up of an assortment of electric heating appli-

ances. The famous A-Best-O automatic electric irons and electric soldering irons were shown together with a very comprehensive exhibit of stoves, heaters, percolators and chafing-dishes.

*The Duntley Company, Inc*—This well-known house featured a new popular price, light weight, fan type sweeper



*Photographic Bureau of The New York Edison Company*

A Lens, the First Made in This Country, Was Shown by the Lighthouse Service Together with the Latest Types of Lantern Design



## The Edison Monthly

which is constructed on scientific principles and is the result of years of experimenting.

*Eastern Rubber Company*—One of the latest products of this company is the "Magic Rubber Mend" for tire vulcanizing. Motorists found the exhibit especially of interest.

*Eastman Machine Company*—The Eastman cloth cutters have taken an important part in the manufacture of the great number of uniforms required for the War. The exhibit showed these machines at work. Either direct or alternating current can be used with them.

*Thomas A Edison, Inc*—Among the many striking features of the Show were the products manufactured by Thomas A Edison, Inc, and displayed by E C Barnes & Bros. The elimination of a stenographer in the already overburdened business office is achieved by the Edison Dictating Machine equipped with an automatic index. The Transophone, which was also shown, makes the work of the typist much more efficient and pleasant. The Edison Telescribe, for electrical recording of telephone conversation, constitutes the art of voice-writing, which is suggestive of the invention of the phonograph.

*Edison Electric Illuminating Company of Brooklyn*—The features of this year's exhibit of the Brooklyn Edison Company were store wiring, house wiring and household appliances, with special sections devoted to portable lamps and vacuum cleaners. A discount of 10 per cent on all Show purchases and on store and house wiring contracts signed during the Show made this exhibit of special interest to Brooklynites.

*The Edison Storage Battery Company* exhibited a storage battery built entirely of steel and using nickel and iron active materials in an alkaline solution. Many very important advantages from this combination have been demonstrated since this storage battery was first exhibited about eight years ago. Chief among these might be mentioned the absence of deterioration due to the falling away of the active materials, and, as a consequence, an exceptionally long life.



*Photographic Bureau of The New York Edison Company*

The United Electric Light and Power Company Had an Unusually Attractive Display



## The Edison Monthly

*Walter S Edmands*—The Edmands electric light baker, designed for the treatment of neuritis, arthritis, rheumatic joints, lumbago and abdominal troubles, was demonstrated. The apparatus is adjustable to any part of the body.

*Electrical Merchandising*—Conceived in the spirit of the electrical business, "Electrical Merchandising" demonstrated that it was a monthly magazine that reaches out into the work of the men on the firing line next to the final consumer.

*Electrical Review*—The "Electrical Review," with which are consolidated the "Western Electrician" and "Electrocraft," maintained, as usual, its headquarters for visiting friends. A number of bound volumes and recent copies of the journal were available for reference.

*The Electrical Testing Laboratories* continued the exhibition of the various classes of testing handled by this company by exhibits of acceptance tests of automobile magnetos. For this test an inspection bench was shown equipped with a number of magnetos in operation. Various types of commercial magnetos, high-tension magnetos and others were demonstrated in connection with this.

*Electrical World*—The "Electrical World," a comprehensive, widely read and authoritative publication, deals with the serious side of the electrical industry. It showed how it treats broadly of all that appertains to the generation, distribution, application and sale of electricity.

*The Electric Auto Sales Corporation*—At this booth were shown several types of batteries for electric vehicles



*Photographic Bureau of The New York Edison Company*

**The Fox Corporation Showed Household Appliances of All Kinds with Special Reference to Laundry Labor-Saving**

and also a 750-pound chassis and a 2,000-pound chassis for commercial vehicles. The deferred payment plan for the purchase of auto trucks was also explained.

*The Electric Cable Company*—This Company and the Habirshaw Electric Cable Company, Inc, displayed their high-speed wire braiding machine in operation.

*The Electric Storage Battery Company* displayed samples of storage batteries manufactured for submarines, gun



## The Edison Monthly

firing, radio work and submarine chasers. A large cell of the type of battery used for central lighting and power stations was erected and a number of types of batteries used for smaller lighting and power plants were shown.

*Everyday Mechanics Company*—This display this year comprised working models of many devices representing the latest achievements in science and

*The Fox Electrical Corporation*—One of the most comprehensive exhibits of electric household appliances was found in the booth of the Fox Electrical Corporation. The display included a wide variety of housekeeping devices of several makes.

*The Frantz Premier Distributing Company*—Connected to the nearest lamp socket, a turn of the switch is all that is necessary to set the Frantz Premier

to work. The cleaner was seen to pick up every speck of dirt, dust, lint and ravelings from rugs and carpets.

*General Electric Company*—The three sections of the General Electric Company installation showed an interesting arrangement of fractional horsepower motors and small motor generator sets. A motor generator set

with control panel as used for charging electric vehicles in private garages and standard charging panels for public garage work were also exhibited.

*The General Vehicle Company*—This exhibit included an electric vehicle display and an airplane motor exhibit. Of interest to rope merchants and business men who use heavy vehicles was a two-ton truck built for the Columbia Rope Company which incorporated novel features of design.



*Photographic Bureau of The New York Edison Company*

The Electric Laundry and the Electric Nursery Were Popular Parts in the Domestic Science Displays

invention. These models were gathered from all parts of the country for the purpose of making clear the nature of the work done by readers of "Everyday Engineering."

*Robert Findlay Manufacturing Company*—Of particular interest to the home builder and electrical dealer was the display of fixtures by the Robert Findlay Manufacturing Company. Quality, style and workmanship combined to make these fixtures the choice of the most discriminating buyers.



## The Edison Monthly

*The A C Gilbert Company*—The wide application of the electric motor in housekeeping was illustrated at this display. The feature of the exhibit was the Polar Cub home motor.

*William R Gregory Company*—The exhibit of this company consisted of sample copies of their various publications, as follows: "Electrical Engineering," "Refrigerating World" and "Bakers' Review"; also technical books relating to electrical subjects.

*The Hamilton-Beach Manufacturing Company* exhibited its well-known line of small motor-driven appliances, comprising Sew-EZ sewing machine motors of both household and tailoring types, vibrators, hair dryers, drink mixers, fans, portable grinders, coffee mills, floor polishers, jewelers' lathe motors, etc.

*Hanovia Chemical and Manufacturing Company* exhibit showed the two therapeutic lamps manufactured by this company, the Heræus sun lamp and the Kramayer lamp. These lamps are valuable therapeutic agents for the treatment of skin diseases, badly healing wounds, ulcers, and for many nervous diseases.

*Wallace B Hart*—Wallace B Hart's

exhibit depicted a complete household laundry equipment with the various "Laundry Appliances of Character" arranged on the efficiency plan. Electricity was used exclusively for power and heat for washing, ironing and drying clothes at this booth.

*Hartt & Morison*—Electricity for light, heat and power, as applied to a great variety of devices, was presented



*Photographic Bureau of The New York Edison Company*

Flood Lighting of Independence Hall Was One of the Attractions at the Westinghouse Booth

in the comprehensive exhibit of this concern. Nela-Wallace and Emeraldite portables, Eradium goods, Red Top stoves, Violet-ray outfits, sewing-machine motors and Norfolk vacuum cleaners were attractively displayed.

*Herberts Engineering Company*—"Selfast," a new electric window and counter display apparatus for exhibiting goods, was attractively featured at this booth. The whirling articles mystified the throngs each day.



## The Edison Monthly

*Home Devices Corporation*—The Modern home washers exhibited here have become a byword in home equipment. This efficient washer fits into and operates in the stationary washtub.

*The Hoover Suction Sweeper*—This is an electric carpet sweeper and vacuum cleaner combined. In addition to cleaning by powerful suction, an

*Hurley Machine Company*—In the booth of this company was found the Thor electric washing machine, the Thor electric ironing machine, and the Thor electric vacuum cleaner. Any one of these three mechanical servants will solve the problem of the work which they are designed to do.

*Innovation Electric Company, Inc.*, pioneers in the manufacture of electric vacuum cleaners, showed and demonstrated two of their latest models. The company represents two different types of cleaners, both of which incorporate important improvements.

*Karry-Lode Industrial Truck Company, Inc.*—This exhibit attracted much attention owing to the many interesting features embodied in its novel design.

In the design of the Karry-Lode industrial truck particular attention has been given to strength, flexibility, simplicity and reliability.

*Kinetic Engineering Company*—The Kinetic organ blower, exhibited by this company, operated a church organ bellows, showing the simplicity of the application. The blower, of the centrifugal fan type, was driven by a direct-connected electric motor, and its superior mechanical construction was readily seen in the demonstration.



*Photographic Bureau of The New York Edison Company*

The Electrical Testing Laboratories Showed Many of the Tests Which Are Made at the Laboratory

electrically revolved brush of soft hair is employed to sweep up the clinging thread, hair or lint which is usually so difficult to remove.

*Hotpoint Electric Heating Company*—Visitors saw something unique at the Hotpoint booth in the way of a little genius on the under side of all Hotpoint percolators which will absolutely prevent the heating element of the percolator burning out. In case of carelessness, the automatic safety device will save the percolator.



## The Edison Monthly

*Landers, Frary & Clark* arranged an attractive display of Universal electric home needs. A hollow-ware display showed all models in the four finishes—copper, nickel, silver-plate and Sheffield-plate.

*Lux Manufacturing Company*—The booth of this concern exhibited different types of Lux lamps. Lux Nitros are produced in more sizes and varieties than any other gas-filled lamps and this fact, coupled with their high quality, accounts to a considerable extent for their substantial and well-merited popularity.

*The Manhattan Electrical Supply Company, Inc.* had an elaborate display of the celebrated Red Seal dry battery and other specialties, including many combination telegraph sets for learning aural and visual telegraphy.

*P J Martin, Inc.*—Various types of electric signs were shown in this exhibit. In addition to flasher signs and

transparencies, the exhibit included pictures of installations made by the Martin Company.

*Metropolitan Engineering Company*—The display here consisted of devices designed for the protection of electrical service. A low-tension service equipment was arranged showing service and meter protective devices, meter-testing cut-outs, and the other customary features.

*The Metropolitan Electrical Products Company, Inc.* exhibited a complete assortment of all makes of household heating appliances. This display showed toasters, irons, percolators, vibrators, vacuum cleaners, portable lamps, stoves, radiators, and other similar devices.

*The Mogul Company*—Paints for protecting metals from rust were shown by the Mogul Company.

*National Electric Utilities Corporation*—The highly efficient ranges which



*Photographic Bureau of The New York Edison Company*

Many Recruits Were Attracted to the Service Through the Demonstration by the Signal Corps of the U S Army



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

Red Cross Workers Prepared Thousands of Bandages During the Exposition

were displayed in the National Electric Utilities Corporation booth make electric cooking practicable for the average family. The household type is built with the rugged strength characteristic of all Neuco products.

*National Lamp Works of General Electric Company*—Projection of light by National Mazda lamps was the keynote of this exhibit. New and interesting developments were shown in connection with moving-picture projection, stereopticon projection, flood lighting, and searchlight work.

*National Scale Company*—National counting machines and National-Chapman elevating trucks exhibited by the National Scale Company comprised a "factory system" designed to reduce the cost of all counting, weighing, checking and estimating processes, as well as loading, unloading and trucking operations.

*The New York and Queens Electric Light and Power Company*—The exhibit of the Queens Central Station gave a bird's-eye view of that vast and

as yet only partially developed area of land which lies directly east of Manhattan—the Borough of Queens.

*The New York Edison Company*—No matter how large or varied are the demands made by the public on The New York Edison Company they are always met in the spirit of the well-known motto, "At Your Service." The exhibit showed how the work of the company is divided into two groups, one handling the actual production and distribution of electric current and the other serving to enlighten users as to the efficiency of electricity and electrical devices in the home, in the office and in industry. The Edison Company has a staff of power engineers, sign-lighting specialists, heating experts, commercial power plant and automobile engineers. The Bureau of Electro-Therapeutics showed the rapidly increasing application of electricity in medicine. The Home Economics Bureau showed the practical and scientific manner in which one can conserve her health and time by using electrical devices in the



## The Edison Monthly

home. The Showrooms are equipped with the latest electric appliances. The work of all these Bureaus was illustrated by the displays of each.

*Bureau of Electro-Therapeutics*—This display, arranged primarily for medical men, presented the latest developments in electro-medical apparatus. An X-ray room, equipped with transformers, fluoroscopic tables and X-ray shadow-boxes, and a dental office with unit chair, X-rays, instrument sterilizers and ionization machines, were of special interest.

*Home Economics*—"Up-to-the-Minute Housekeeping Is the Best Service a Woman Can Give Her Country" was the slogan of the Woman Suffrage booth, which was devoted to the interests of women and the home. A

model laundry, fitted with various kinds of labor-saving appliances, was arranged also with a view to the saving of steps.

*Model Showroom*—The Edison Company's model showroom occupied a spacious, well-lighted booth in which were arranged various electrical devices for the home and other uses in a manner that commanded the admiration of those interested in displaying goods.

*The New York Electrical School*—One of the important educational institutions in the electrical industry is the New York Electrical School. Photographs and charts which were exhibited at the Exposition gave a good idea of the work carried on by this widely known and recognized school.



*Photographic Bureau of The New York Edison Company*

A Display of Household Appliances by The New York Edison Company



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*Photographic Bureau of The New York Edison Company*

Queens and Its Commercial and Industrial Relation to the Rest of the Country Was the Subject of the Display by The New York and Queens Electric Light and Power Company

*New York Pneumatic Service Company*—The exhibit of this company was both interesting and educational. A duplicate installation was shown of the sending and receiving stations as found in the post-offices of the city. Time-locks used on the transmitting apparatus were operated, illustrating the methods of preventing any congestion of the service.

*The Nicholas Power Company*—The application of the incandescent lamp to motion-picture projection was the subject of an interesting display by these manufacturers of motion-picture machines. The new light source not only produces a brighter and steadier light but it makes possible an improved projection of stereopticon slides.

*The Northwestern Electric Equipment Company*—The Northwestern exhibit this year comprised, among other

features, electric washing machines adapted to the needs of different homes.

*The Ohio Company*—An unusual method of exposition display was that of the Ohio Company, manufacturers of vacuum cleaners. A store front was erected, and the cleaners were demonstrated in the show windows. At each window corner was a picture showing the various ways the cleaner may be used.

*Otis Elevator Company*—The Otis Company used as the central feature of this year's display an Otis electric elevator controller so arranged that all switches are actuated by the operation of a master switch similar to that used in the elevator car. The elevator lubricants which have been selected after long experience and other accessories which promote good elevator service were exhibited and pictured in this booth.



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*The Palmer Electric and Manufacturing Company* arranged a display of reverse phase circuit breakers as used for the protection of elevator and train motors in Greater New York. Emergency lighting control switches, magnet control switches showing particularly the automatic emergency

lamps was the Wallace adjustable lamp. It can be fastened to the back of a chair, back of a bed, hung on the wall, or in fact put anywhere in a room so that light may be had where it is most needed.

*Philadelphia Storage Battery Company*  
—The Philadelphia Storage Battery



*Photographic Bureau of The New York Edison Company*

The Exposition Headquarters of the Woman Suffrage Party Adjoined the Home Economics Displays

light control, and safety switches, completed the display.

*Patterson, Gottfried & Hunter, Inc.*—The Ellicott woodworker exhibited was of unusual interest to carpenters and builders. This machine, which is portable, is especially adapted for use either in the shop or on the job, or both.

*A C Penn, Inc.*—The display included both lighting fixtures and industrial appliances. Among the

Company exhibited the detail component parts of the "Diamond Grid" thin plate battery for electric vehicles, for starting, lighting and ignition purposes, and for other uses.

*Pittsburgh Electric Specialties Company*  
—Many interesting articles, including Pittsburgh Parabolite spotlights, motorcycle headlights, dirigible automobile searchlights, Royal spark-plug tester, excess indicator, electric fans, irons, sewing-machine motors

## The Edison Monthly

and vacuum cleaners, were displayed by the Pittsburgh Company.

*The Prometheus Electric Company*—This display was of particular interest to medical men, for various types of electric sterilizers were shown. Besides the instrument sterilizer, there was a water sterilizer and a ster-

Ritter Company was shown, namely, the Ritter unit equipment, which was designed primarily for the Rochester Dental Dispensary. The unit includes all the up-to-date and approved dental features in a surprisingly small space.

*Shelton Electric Company*—The dis-



*Photographic Bureau of The New York Edison Company*

**The Brooklyn Edison Company's Exhibit Attracted Thousands of Visitors from Across the River**

ilizer for instruments and dressings.

*The Regina Company*—The electric cleaner, Model "K," was shown to be not only a vacuum cleaner, but a sweeper as well with a revolving brush operating inside the nozzle. The motor is controlled by a switch conveniently located on the upper end of the handle. A turn of the switch starts or stops the machine.

*The Ritter Dental Manufacturing Company*—The latest production of the

play by the Shelton Company this year included the Shelton dental engine, which has one of the smallest motors in the world. It weighs only five ounces and is mounted on a hand piece.

*Standard Aero Corporation*—A tractor biplane of the type used at all the Government aviation training schools was exhibited. This machine, which hung in the central well of the Palace, has a span of 40 feet, is 27



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feet from front to tail and is 10 feet deep. It is capable of a six-hour flight carrying two passengers.

*Star Fuse Company*—Fuses for the protection of electric circuits were demonstrated by the Star Company.

*The Steynis Ozone Company*—This company exhibited an apparatus that not only clarifies water but absolutely destroys all pathogenic germs. The apparatus can be used on either direct or alternating 110-120 volt circuits.

*The Stonehouse Steel Sign Company*—The exhibit included signs, warning tags and boards for the posting of accident prevention bulletins. More than 500 different types of signs have been developed by the Stonehouse Company.

*Strauss & Co*—The Strauss booth contained a variety of electric signs

and flags. Aside from the usual electric signs, the exhibit included bronze and copper signs illuminated by electricity and plate-glass interior-lighted signs.

*William Truswell & Sons*—This well-known contracting firm had a display of photographs illustrating its work and showing the various types of electrical installation which have been made.

*The Tucker Electrical Construction Company*—The Company, one of the oldest contracting firms in the electrical business, showed a number of photographs of the work it has handled.

*The United Electric Light and Power Company*—The display of the United Electric Light and Power Company was divided into three sections. In the northerly section of the booth was



*Photographs courtesy of the New York Edison Company*

The Ever-Growing Field of Electro-Therapy Was Shown at the Electric Hospital

## The Edison Monthly

a panoramic view of the Hudson River, showing United States warships in miniature, with upper Manhattan with its electric lights serving as a background. The central section of the booth was devoted to reception quarters with comfortable wicker furniture and decorations in French gray. The third section represented the United Electric Shops of the Company.

*United States Cloth Cutting Machine Company* had on display various models of the U S electric cutting machine. The 1917 "E" type direct-current round knife machine and "E U" type direct-current straight knife machine are new types and were featured.

*Universal Winding Company*—Manufacturers of electrical apparatus found a very complete line of electrical coil winding machinery at this booth. Two magnet winding machines were shown in actual operation. A line of sample coils manufactured by the Coto-Coil Company was also on display.

*Victor Electric Corporation*—Physicians, surgeons and dentists discovered in this exhibit a very complete display of electro-therapeutic appliances. In addition to the exhibit in the Victor booth, the electro-therapeutic display of the New York Edison Company contained an equipment of X-ray, electro-medical and surgical apparatus for medical offices and hospitals.

*Viking Sign Company, Inc*—A very attractive sign, the letters and colors of which are interchangeable, was exhibited. It is economical to maintain and is mainly an interior fixture.



The Hotpoint Standard Window Display as Shown at the Exposition

*Ward Motor Vehicle Company*—Electric commercial vehicles were exhibited by the Ward Company. The display included a two-ton truck chassis and a 750-pound wagon chassis.

*J A Whaley Co*—Various types of paper lamp shades were shown by this company.

*The Wappler Electric Company* exhibited various sorts of apparatus used in electro-therapeutics. Some of this apparatus is employed in the Army base hospitals and Naval hospitals, and all of it is used in general medical practice. Prominent in the display is a large X-ray machine with a table for taking stereoscopic X-ray pictures and for examining the patient by means of the X-ray.

*The Western Electric Company*—A complete line of household appliances was shown and demonstrated by the Western Electric Company. The main part of the exhibit was given up to demonstrations of the various household devices.

*Westinghouse Electric and Manufacturing Company*.—An attractive exhibit, appealing particularly to those interested in the equipment of the home, made up the Westinghouse display.



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An unusually complete line of heating devices, including toaster stoves, coffee percolators, chafing dishes, hot plates, curling irons, tire vulcanizers, sterilizers, solder pots, glue pots and warming pads, was featured.

*Roger Williams*—One of the many attractions of this display was a Simplex electric range similar to the one the Government is using at the Newport Training Station. Another feature of interest was the new radiant radiator, which is said to throw more heat than any other radiator of its kind on the market.

*The Yonkers Electric Light and Power Company*—Modern household appliances operated by electricity formed one of the many interesting divisions of this exhibit. All of the up-to-date electric heating and cooking apparatus and a selection of fine art portable lamps were included in this group. The Yonkers Chamber of Commerce exhibited with the Electric Light and Power Company through its Real Estate Board, explaining the commercial, industrial and residential advantages of Yonkers. The Eagle Felt Works, Inc, manufacturers of felt hats for men and boys, and the National Sugar Refining Company provided displays showing the preparation of their products.

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Due to this great number of exhibits, the Exposition served in a multitude of ways to illustrate what electricity is doing not only in industry in general but as a telling war factor. The thousands of people who thronged the Palace during these eventful ten days were also brought to realize the magnitude of the task which the Red Cross

faces in caring for sick and wounded soldiers and stricken civilians.

The opportunity to study different types of fighting craft afforded by the Navy's displays gave the public a better idea of the conditions under which our sailors live and work than could have been provided in any other way. Similar emphasis upon the duties and responsibilities of enlisted men was made by the exhibits of the Army where camp and trench activities were vividly illustrated.

The importance of electricity in the production of war supplies was presented to the public in a manner that showed not only the value of electricity in this emergency but the extent and significance of these industries themselves. The use of current in the ordinary conduct of home and factory demonstrated the extent to which electric light and power is contributing to the growing need for efficiency in these departments. With fuel a growing scarcity, every home device that can conserve in this respect is a prime necessity. The exhibits of cooking and heating apparatus for home use pointed out in a striking manner how useful and needful these are in the management of household affairs. Much the same necessity is apparent in the manufacturing sphere and can be met likewise electrically as booth after booth demonstrated.

All in all, the Exposition was a striking evidence of what the country is doing in the present crisis and how electricity is helping it to meet and overcome every obstacle. Indeed, without the aid of current many, if not all, of these activities would be handicapped.



## The Edison Monthly



Where the Glowing Town Repeats Itself in the Waters that Grace the Park at Fifty-ninth Street



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Motors (Concluded)

#### General Uses

Boker H & Co Inc—101-103 Duane St  
 Bell Electric Motor Co—30 Church St  
 Burke Elec Co—30 Church St  
 C & C Electric & Mfg Co—90 West St  
 Century Electric Co—30 Church St  
 Colonial Fan & Motor Co—150 Chambers St  
 Crocker-Wheeler Co—30 Church St  
 Diehl Mfg Co—149 Broadway  
 Eck Dynamo & Motor Co—46 W Broadway  
 Electro-Dynamic Co The—Ave A Bayonne N J  
 Emerson Elec Mfg Co The—50 Church St  
 General Electric Co—120 Broadway  
 Holtzer-Cabot Electric Co—83 Warren St  
 Imperial Elec Co (Watson)—253 Broadway  
 Lincoln Electric Co—149 Broadway  
 Mechanical Appliance Co—154 Nassau St  
 Northwestern Mfg Co—243 Canal St  
 Peerless Elec Co—147-9 W 35th St  
 Reliance Electric & Engineering Co—90 West St  
 Robbins & Myers Co The—30 Church St  
 Sprague Electric Works—527 West 34th St  
 Triumph Electric Co—114 Liberty St  
 Wagner Electric Mfg Co—30 Church St  
 Western Elec Co—463 West St and 105 W 40th St  
 Westinghouse Elec & Mfg Co—165 Broadway

#### Inspection—Maintenance—Repairs

Blackall & Baldwin Co—39 Cortlandt St  
 Bogart Co A L—55 Barclay St  
 Borne Chas A Co Inc—35-37 Wooster St  
 Comstock Associate Co—101 Park Ave  
 Conlan Electric Co—43 Murray St  
 Elec Machine Tool Co—50 Church St  
 Elec Motor Insp & Rep Co—1 Beekman St  
 Elec Repair Co—548-550 W 23d St  
 General Electric Inspection Co—237 Fulton St  
 Globe Elec Cont & Rep Co The—434 Broome St  
 Graham Bros Co—585 Hudson St  
 Hammill John—55 Ann St  
 Harlem Electric Co—6 E 116th St  
 Jordan Bros Inc—74 Beekman St  
 Kelting Electric Co—119 Pearl St  
 Leve Robert E—19 E 32d St  
 Maintenance Co The—417 Canal St  
 National Electric Co—89 Centre St  
 Naumer Elec Co—96 Beekman St  
 Naylor & Newton—243 Canal St  
 Peerless Engineering Co—147-49 W 35th St  
 Russell & Co—56 W 45th St  
 Schoenberg R A & Co—906 6th Ave  
 See Van Dyck C—39 Cortlandt St  
 Weideman Geo Elec Co—35-37 Rose St  
 Westinghouse Elec & Mfg Co (Repair Shop)—  
 467 10th Ave cor 36th St

#### Starters and Controllers

Allen-Bradley Co—50 Church St  
 Automatic Switch Co—4 White St  
 Curtis-Carhart Co Inc—150 Chambers St  
 Cutler-Hammer Mfg Co The—50 Church St  
 Electric Controller & Mfg Co The—50 Church St  
 General Electric Co—120 Broadway  
 Industrial Controller Co—50 Church St  
 Rowan Electric Mfg Co—39 Cortlandt St  
 Ward Leonard Electric Co—Mount Vernon N Y  
 Westinghouse Elec & Mfg Co—165 Broadway

#### Used Motors

Archer & Baldwin—114-118 Liberty St  
 Cutter Co F B—50 Church St  
 Duzets & Son—546 W 45th St  
 Graham Jas A—30 Church St  
 Holcomb & Co D S Inc—241-3 Canal St  
 Klein & Co—208 Centre St  
 Oneida Elect Co—313 Canal St

### Office Accessories

Edison Dictating Machine—Orange N J 114  
 Liberty St N Y C  
 Ensign Elec Calculating Machine—280 B'way  
 "The Dictaphone"—83 Chambers St  
 The Hooven, Owens, Rentschler Co—Woolworth  
 Building  
 "The Millionaire" Elec Cal Mach—1 Madison Ave

### Pumps

Beach-Russ Co—220 Broadway  
 Blackall & Baldwin Co—39 Cortlandt St  
 Boker H & Co Inc—101-103 Duane St  
 D'Olier Centrifugal Pump & Machine Co—503  
 Morris Building Philadelphia Pa  
 Goulds Mfg Co—16 Murray St  
 Holland Machine Co—1270 Broadway  
 International Steam Pump Co—115 Broadway  
 Lea-Courtenay Co—90 West St  
 Platt Iron Works The—50 Church St  
 Quimby William E Inc—548 West 23d St  
 Rider Ericsson Engine Co—20 Murray St  
 Rumsey Pump & Mach Co—75 Warren St  
 Twinvolute Pump and Mfg Co—30 Church St  
 Western Elec Co—463 West St and 105 W 40th St

### Refrigeration

Automatic Refrigerating Co—50 East 42d St  
 Brunswick Refrigerating Co—30 Church St  
 De La Vergne Machine Co—Foot of East 138th St  
 Electrical Refrigerating Co Inc The—Woolworth  
 Building  
 Johns-Manville Co H W—41st St & Madison Ave  
 Montclair Refrigerating Corp—Woolworth Bldg  
 Shipley Const & Sup Co—Columbia St Bklyn N Y  
 Triumph Ice Machine Co—30 Church St  
 Voss Ice Mach Works—242-252 East 122d St

### Signs

Adams Bagnall Co—114 Liberty St  
 B & B Sign Company—347 Fifth Ave  
 Bilt-Well Sign System (Elec) 113-115 E 15th St  
 Bofinger Bros—146 East 42d St  
 City Electric Sign Co Inc The—444 E 13th St  
 Commercial Sign Co Inc—440 W 46th St  
 Empire Elec Sign Co—162 East 118th St  
 Federal Sign System (Electric)—649 W 43d St  
 Fricker Frederick—430 11th Ave  
 Frink I P—24th St and 10th Ave  
 Gude Co O J—220 W 42d St  
 Halpern Bros—210 West 26th St  
 Manheimer Co The—162 W 34th St  
 Martin P J—306 W 53d St  
 Mechling Charles J—477 Willis Ave  
 Mercantile Adv Co—17 Battery Pl  
 Norden Electric Sign Co Inc—311 W 40th St  
 Opal Sign Co—254 Tenth Ave  
 Pisch Electric Sign Co Inc The—415 W 48th St  
 Prismlyte Co The—8 St Felix St Brooklyn  
 Snow & Co—531 W 46th St  
 Rice Geo H Co Inc—481-87 Sterling Pl Bklyn  
 Strauss & Co—209 W 48th St  
 Strauss L L—74 W 125th St  
 Universal Elec Stage Ltg Co—240 W 50th St  
 Viking Sign Co—527 Fifth Ave

### Sign Flashers

Betts & Betts Corporation—511 W 42d St  
 Phelps Mfg Co—729-31 Broadway  
 Reynolds Elec Co—1123 Broadway

### Supply Dealers

#### Manhattan

Alpha Elec Co Inc—116-118 W 29th St  
 Bailly Elec Supply Co—62 Vesey St  
 Bohn Elec Co C C—820 6th Ave  
 Bunnell & Co J H—32 Park Pl



# The New York Edison Directory

## Department Stores which Sell Electric Appliances

Adams-Flanigan Co—Westchester & Third Aves  
Bronx Basement  
Barnett Bros—Columbus Ave & 74th St  
Basement  
\*Bloomingdale Bros—59th St & Third Ave  
Basement  
John Daniell Sons—759 Broadway Basement  
\*Gimbel Bros—6th Ave & 33d St Fifth Floor  
\*J B Greenhut & Co—6th Ave & 18th St  
Basement  
H C F Koch & Co—132 W 125th St Basement  
Lewis & Conger—Sixth Ave & 45th St First Floor

Liggett-Riker-Hegeman Drug Stores  
\*Lord & Taylor—5th Ave & 38th St Fifth Floor  
\*James McCreery—5 W 34th St Sixth Floor  
\*R H Macy & Co—Broadway & 35th St  
Basement  
Rothenberg & Co—34 W 14th St Basement  
Stern Bros—41 W 42d St Fourth Floor  
\*John Wanamaker—Broadway & 10th St  
Seventh Floor

\*These stores maintain special electrical departments where wide varieties of electric household appliances are always displayed.

## Manufacturers and Agents

### Arc Lamps

Adams Bagnall Co—114 Liberty St  
Bogue Electric Co C J—513-15 W 29th St  
Cooper-Hewitt Elec Co—730 Grand Street  
Hoboken N J  
General Electric Co—120 Broadway  
General Illuminating Co—1604 Broadway  
Hallberg J H—38 E 23d St  
Kandem Electric Co Inc—58 Reade St  
Stave Electrical Co—131 Hudson St  
Western Elec Co—463 West 1st and 105 West  
40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wohl M J & Co—211 Fulton St Brooklyn N Y

### Mercury Vapor Lamps

Cooper-Hewitt Elec Co—730 Grand Street Ho-  
boken N J  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

### Automobiles

C—Commercial I—Industrial P—Passenger  
Anderson Electric Car Co of N Y (Detroit Elec-  
tric)—Central Park West at 62d St (C & P)  
Atlantic Elec Vehicle Co—52 Vanderbilt Ave (C)  
Automatic Transportation Co—258 B'way (I)  
Baker R & L New York Corporation The—  
Central Park West at 62d St (P)  
Buda Co of Chicago—30 Church St (I)  
Comm'l Truck Co of America—30 E 42d St (C)  
Couple Gear Co—(Clarence L Smith Co Agents)  
—544 W 30th St (C)  
Cowan Truck Co—114 Liberty St (I)  
Electric Automobile Sales Corp—Times Bldg (C)  
Electro Coach Corp—30 Church St (Busses)  
Elwell-Parker Electric Co (Lucian C & G W  
Brown Agts)—50 Church St (I)  
Field Omnibus Co—149 Broadway (Busses)  
General Vehicle Co—Long Island City (I) (C)  
Healey & Co—Broadway and 51st St (P)  
Hoagland-Thayer Inc—383 Halsey Street  
Newark N J (I)  
Hunt Co C W Inc—61 Broadway (I)  
Lansden Co Inc The—Flatbush & Nostrand  
Aves Brooklyn (C)  
Lansing Co—288-9 West St (I)  
Mercury Mfg Co—(Truck & Tractor Co Agents)  
25 Church St  
Ohio Electric Car Co (Robt W Schuette Agent)  
—236 West 54th St (P)  
Orenstein-Arthur Koppel Co—30 Church St (I)  
Walker Vehicle Co—Grand Central Terminal  
Room 3709 (C)  
Ward Motor Vehicle Co—Mt Vernon N Y (C)

### Charging Apparatus

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—Belleville N J

Electric Products Co The—30 E 42d St  
General Electric Co—120 Broadway  
Industrial Controller Co—50 Church St  
Lincoln Electric Co—149 Broadway  
Northwestern Electric Co The—1457-63 B'way  
Wagner Electric Mfg Co—30 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Elec & Mfg Co—165 Broadway

### Charging Apparatus for Ignition, Starting and Lighting Batteries

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—46 West Broadway  
Edison Thomas A Inc—141 Lakeside Ave  
Orange N J  
Electric Products Co—30 E 42d St  
General Electric Co—120 Broadway  
Lincoln Electric Co—149 Broadway  
Robbins & Myers Co—30 Church St  
Wagner Electric Mfg Co—50 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Electric & Manufacturing Co—  
165 Broadway

### Electric Garages

Acker Merrill & Condit Co—523 W 46th St (C)  
Exide Battery Depots Inc  
East Side Garage—141 E 25th St (C)  
North Side Garage—West End Ave & 64th St (C)  
West Side Garage—527-41 W 23d St (C)  
International Motor Co—West End Ave & 63d  
St (C)  
No Moore St Garage—56-62 No Moore St (C)  
Piercy Contracting Co—422 W 15th St (C)  
Proud Elec Co T I—114 W 54th St (P)  
The Electric Garage—Central Park West & 62d  
St (P)  
The 474 West 130th Street Garage Inc—474 W  
130th St (C)  
Wright's Garage Inc—600 W 158th St (P)

### Mechanical and Battery Parts

Anderson Electric Car Co—Central Park West  
at 62d St  
Anderson Mfg Co Albert & J M—135 Broadway  
Baker R & L New York Corporation The—  
Central Park West at 62d St  
Edison Storage Battery Co—204-206 W 76th St  
Electric Garage—Central Park West & 62d St  
Electric Storage Battery Co The—100 B'way  
Exide Battery Depots Inc—West End Ave and  
64th St  
Gassaway F S Inc—212 E 54th St  
General Lead Batteries Co—1790 Broadway  
Gould Storage Battery Co The—30 E 42 St  
Guarantee Electric Products Co—47 W 42d St  
Phila Storage Battery Co—American Building  
Broadway and 58th St  
Storage Battery Supply Co—239 East 27th St  
Walker Vehicle Co—531 W 46th St  
Willard Storage Bat Co The—228-30 W 58th St



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Buffers—Polishers

Bogue Electric Co C J—513-15 W 29th St  
 Fort Wayne Electric Works of the General Electric Co—30 Church St  
 General Electric Co—120 Broadway  
 Green Electric Co The W—81 Nassau St  
 Holtzer-Cabot Electric Co—83 Warren St  
 Munning-Loeb Co—Canal & Sullivan Streets  
 Robbins & Myers Co The—30 Church St  
 Westinghouse Elec & Mfg Co—165 Broadway

### Clocks—Time Stamps and Recorders

Betts & Betts Corporation—511-13 W 42d St  
 Holtzer-Cabot Electric Co—83 Warren St  
 Howard Electric Clock Co—Maiden Lane & William St  
 Walker Bros & Haviland—50 Church St

### Coffee Mills

Boker H & Co Inc—101-103 Duane St  
 Canton Electric Cut Co—11 E 125th St  
 Coles Mfg Co—419 Long Beach Bldg  
 Deer Co A J—55 West 63d St  
 Hobart Mfg Co Inc The—24 East 21st St  
 Howe Scale Co of N Y The—341 Broadway  
 Jacobs Bros Co Inc—78 Warren St

### Drills and Grinders (Portable)

Chicago Pneumatic Tool Co—52 Vanderbilt Ave  
 Cincinnati Electrical Tool Co—50 Church St  
 Electro-Magnetic Tool Co—426 Broome St  
 Hisey Wolf Machine Co—50 Church St  
 Standard Electric Tool Co—30 Church St  
 United States Electrical Co—50 Church St  
 Van Dorn Electrical Tool Co—30 Church St

### Electric Stage Appliances

Display Stage Lighting Co—270 W 44th St

### Electro-Therapeutic and Dental Apparatus

American Sterilizer Co—Erie Pa  
 American X-Ray Equip Co—401-405 E 31st St  
 Edmonds Walter S—134 Congress St Boston Mass  
 General Acoustic Co—Acousticon for the Deaf 220 W 42d St  
 Guarantee Electric Products Co—47 W 42d St  
 Hanovia Chemical & Mfg Co—30 Church St  
 Harper Oriphone Co (Instruments for the Deaf) —303-305 Fifth Avenue  
 Hospital Supply Co The—53-55 Fifth Avenue  
 Hotpoint Elec Heating Co—147 Waverly Pl  
 Hughes Co The J W—110 E 23d St  
 Johns-Manville Co H W—41st St & Madison Ave  
 Kny-Scheerer Co The—404-410 West 27th St  
 MacAlaster Wiggin Co—66 Broadway Cambridge Mass  
 Meyrowitz E B Inc—237 Fifth Ave  
 Metropolitan Eng Co—35 Vestry St  
 Neel-Armstrong Co—29 W 34th St  
 Pelton & Crane Co—Detroit Michigan  
 Pittsburgh Electric Specialties Co—412 Eighth Ave (lamps only)  
 Prometheus Elec Co The—232 E 43d St  
 Ritter Dental Mfg Co—Fifth Ave Building  
 Sanax Co Inc The—125 E 23d St

Shelton Elec Co—30 W 42d St  
 Simplex Electric Heating Co—120 W 32d St  
 Sorensen C N Co Inc—177 E 87th St  
 Tiemann Co George—107 E 28th St 107 Park Row  
 Trenaman Dental Mfg Co—107 W 25th St  
 Victor Electric Co—110 E 23d St  
 Vioray Mfg Co—915 Whitlock Ave Bronx  
 Waite & Bartlett Mfg Co—252-258 W 29th St  
 Wappler Elec Mfg Co Inc—173 E 87th St  
 Westinghouse Electric & Mfg Co—165 B'way  
 White Dental Mfg Co S S—5 Union Square  
 Williams Roger—120 W 32d St  
 Wolff Co Wm F—501 W 145th St

### Elevators—Dumbwaiters

American Elevator Co—117 Cedar St  
 Burdett-Rowntree Mfg Co—119 W 40th St  
 Burwak Elevator Co—216 Fulton St  
 Dowdall Chas E Inc—152 W Broadway  
 General Elevator Co—29 Broadway  
 Gurney Elevator Co—62-64 W 45th St  
 Jordon Bros Inc—74 Beekman St  
 Maintenance Co The—417-421 Canal St  
 National Elevator Co—62-64 W 45th St  
 New York Elevator Co—50 Grand St  
 Otis Elevator Co—11th Ave and 26th St  
 Reedy Elevator Co—202 Ninth Ave  
 Roberts Elevator Co Jas H—430 W Broadway  
 Sedgwick Machine Works—128 Liberty St  
 See Elec Elevator Co A B—220 Broadway  
 Warner Elev Mfg Co—113 Warren St  
 Warsaw Elevator Co—216 Fulton St  
 Wheeler McDowell Elev Co—417 Canal St

### Fans, Blowers and Air Compressors

Adams Bagnall Co—114 Liberty St  
 Allis-Chalmers Co—50 Church St  
 American Blower Co—141 Broadway  
 Beach-Russ Co—220 Broadway  
 Boker H & Co Inc—101-103 Duane St  
 Brunner Mfg Co—30 Church St  
 Century Electric Co—30 Church St  
 Clayton Air Compressor Works—115 Broadway  
 Curtis & Carhart Inc—150 Chambers St  
 Curtis Pneumatic Machinery Co—30 Church St  
 Diehl Mfg Co—149 Broadway  
 Eck Dynamo & Motor Co—46 W Broadway  
 Federal Sign System (Electric)—649 W 43d St  
 Fox Electrical Corporation—119 W 42d St  
 Garner Ventilating Co—136 Liberty St  
 General Electric Co—120 Broadway  
 Gerdes Theo R N—123 Liberty St  
 Hunter Fan & Motor Co—114-118 Liberty St  
 Ilg Elec Vent Co—13 Park Row  
 Kandem Electric Co Inc—49 E 21st St  
 Kinetic Engineering Co—41 Park Row  
 Koithan & Pryor—39 Cortlandt St  
 Kragh C W—184 Hudson Ave  
 Laidlaw-Dunn-Gordon Co—115 Broadway  
 Manhattan Electrical Supply Co—17 Park Place 110 West 42d St, 127 West 125th St  
 National Brake & Elec Co—165 Broadway  
 Robbins & Myers Co The—30 Church St  
 Schoenberg R A & Co—906 6th Ave  
 Smucker Arthur C—30 Church St  
 Sorensen Co Inc C M—177 East 87th St  
 Sprague Electric Works—527 W 34th St  
 Strauss L L (For Rent)—74 W 125th St



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Fans, Blowers, Air Compressors (Concluded)

Sturtevant B F Co—50 Church St  
Typhoon Fan Company—1544 Broadway  
Western Elec Co—463 West St & 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Westinghouse Traction Brake Co—165 B'way  
Wing L J Mfg Co—352-362 W 13th St

### Fire Alarm Systems (Interior)

Auto Call Co—30 Church St  
Automatic Fire Alarm Co—416 Broadway  
Edwards Co—Exterior St Bronx  
Leveridge Chas W Inc—133 Liberty St  
Metropolitan Elec Protective Co—130 W 26th St  
Ostrander & Co W R—22 Dey St  
U S E M Co—221 West 33rd St

### Fixtures and Portables

Bayley & Sons Inc—101 Park Ave  
Benjamin Electric Mfg Co—114 Liberty St  
Black & Boyd—17 E 47th St  
Bullock Mfg Co—408-12 W 13th St  
Caldwell Co Edward F—36-40 West 15th St  
Dale Lighting Fixture Co Inc—107-9 W 13th St  
Falkenbach Mfg Co The—159 E 54th St  
Federal Sign System (Electric)—649 W 43rd St  
Findlay Mfg Co Robt—28 Warren St  
Fox Electrical Corporation—119 W 42d St  
Frink T P—24th St and 10th Ave  
Gleason Mfg Co E P—37 Murray St  
Goetz A E—55 Barclay St  
Harlem Gas & Elec Fix Co—157-59 E 128th St  
Heather Co The R C—19-21 W 36th St  
Kandem Electric Co Inc—49 E 21st St  
Knickerbocker Fixture & Electric Co The—325 W 42d St  
Lighting Studios Co—220 W 42d St  
Livingston & Co J Inc—70 East 45th St  
McFaddin & Co H G—38 Warren St  
McHugh & Son Joseph P—9 West 42d St  
Mayer & Co Leon—1304 Boston Road  
Metropolitan Elec Supply Co—126 W 36th St  
Miller & Co Edward—68-70 Park Place  
Mitchell Vance Co The—294 Madison Ave  
Morris Iron Works Elmer P—136 Liberty St  
National X-Ray Reflector Co—21 W 46th St  
N Y Gas & Elec Appliance Co—569-571 B'way  
Parker Co The Chas—32 Warren St  
Pittsburgh Lamp Brass & Glass Co—35 W 23d St  
Roeser & Heidelberg Inc—54 W 37th St  
Schoenberg R A & Co—906 6th Ave  
Shapiro & Aronson—20 Warren St  
Sibley & Pitman—19-21 W 36th St  
Silvestro C—4149 Park Ave Bronx  
Simes Co The—20 Rose St  
Sommer Lighting Fixture Co Inc—386 Second Ave  
Standard Lighting Fixture Co—61 Warburton Ave Yonkers N Y  
Sterling Bronze Co—18 East 40th St  
"Vase-Kraft" Studio—333 Fourth Avenue  
Wahle, Phillips Co—Park Ave & 40th St  
Walter G E—157 East 44th St  
Western Elec Co—463 West St and 105 W 40th St

### Street Fixtures

Adams Bagnall Co—114 Liberty St  
Central Foundry Co—90 West St  
Fox & Co John—253 Broadway  
General Electric Co—120 Broadway  
Morris Iron Works Inc E P—136 Liberty St  
Mott Iron Works J L—118 Fifth Ave  
Westinghouse Electric & Mfg Co—165 B'way

### Globes—Reflectors

Adams Bagnall Co—114 Liberty St  
Dealing William—1 Hudson St  
Fox Elec Corp The—119 W 42d St

Frink I P—24th St & 10th Ave  
Gillender & Sons Inc—19 Madison Ave  
Gleason-Tiebout Glass Co—200 Fifth Ave  
Haskins Glass Co—98 Park Pl  
Holophane Glass Co Inc—340 Madison Ave  
Hubbell Harvey Inc—30 East 42d St  
"Ivanhoe-Regent Works" of the General Elect  
Company—105 W 40th St  
Jefferson Glass Co—220 W 42d St  
Lighting Studios Co—220 W 42d St  
Macbeth-Evans Glass Co—143 Madison Ave  
Morgan & Sons John—61 East 9th St  
Northwood Co H—19 Madison Ave  
Organ Arthur—114 Liberty St  
Phoenix Glass Co—230 Fifth Ave  
Harry Pickhardt—98 Park Place  
Pittsb'g Lamp Brass & Glass Co—35-37 W 23d St  
Straight Filament Lamp Co—42 E 23d St  
Weeks Nelson—214 State St Brooklyn N Y  
Wilkinson Co—93 Underhill Ave Brooklyn N Y

### Heating and Cooking

American Elec Heater Co—Detroit, Michigan  
Bohn Elec Co C C—820 6th Ave  
Boker H & Co Inc—101-103 Duane St  
Cutler-Hammer Mfg Co The—144th St and  
Southern Boulevard  
Dover Mfg Co—30 Church St  
Federal Sign System (Electric)—649 W 43d St  
Fox Electrical Corporation—119 W 42d St  
General Electric Co—120 Broadway  
Guarantee Electric Products Co—47 W 42d St  
Hotpoint Electric Heating Co—147 Waverly Pl  
Hughes Electric Heating Co—Chicago Ill  
Johns-Manville Co The H W (Heating Pads)  
41st St and Madison Ave  
Landers, Frary & Clark Messrs—200 Fifth Ave  
Manhattan Electrical Supply Co—17 Park  
Place, 110 West 42d St, 127 West 125th St  
Metropolitan Elec Prod Co Inc—101 W 42d St  
National Elec Utilities Corp—103 Park Ave  
Pelouze Mfg Co—32 Park Place  
Phelps Mfg Co—2 Astor Place  
Pittsburgh Elec Specialties Co—412 8th Ave  
Prometheus Electric Co The—232 E 43d St  
Reimers Mfg Co—130 Church St  
Schoenberg R A & Co—906 6th Ave  
Sibley-Pitman Elec Corp—19-21 W 36th St  
Simplex Electric Heating Co—120 W 32d St  
Western Elec Co—463 West St and 105 W 40th St  
Wicks Electric Co—Cleveland Ohio  
Williams Roger—120 West 32d St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wood Electric Co C D—441 Broadway

### Ironing Machines

American Ironing Machine Co—46 E 41st St  
Apex Electric Home Appliance Co—457 Gold St  
Brooklyn N Y  
Fox Elec Corporation (Simplex)—119 W 42d St  
"Harton" Mfg Co—46 E 41st St  
Wallace B Hart (Roma) (Harton)—46 E 41st St  
Hurley Machine Co—147 W 42d St  
Roma Mfg Co—46 E 41st St

### Horse Clippers

Gillette Clipping Machine Co—110 W 32d St

### Low Voltage Direct Current Bell Ringers

U S E M Co—301 West 37th St

### Motors

#### General Uses

Allis-Chalmers Co—50 Church St  
Barker John H—95 Liberty St  
Bogue Electric Co C J—513-15 W 29th St



# The New York Edison Company

General Offices  
Irving Place & 15th St  
Telephone Stuyvesant 5600

BRANCH OFFICES	TELEPHONE
424 Broadway	Canal 8600
126 Delancey St	Orchard 1960
10 Irving Place	Stuyvesant 5600
124 West 42d St	Bryant 5262
151 East 86th St	Lenox 7780
15 East 125th St	Harlem 4020
362 East 149th St	Melrose 9900

All showrooms open until midnight

EMERGENCY NIGHT AND SUNDAY  
CALL—FARRAGUT 3000

## *Territory Served by the Various Supply Offices*

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Sts, west of the Bowery and south of Catharine St

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



"At Your  
Service"





The Old Clam Broth House on Weehawken Street

VOLUME X

DECEMBER, 1917

NUMBER 7

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## The Edison Monthly

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N F BRADY, President  
JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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Reasons for the close down of steam plants in factories and for the discontinuance of isolated electric generating plants become more pressing every day. Not that the materials made in buildings served by such power sources are not urgently needed—indeed such products may be absolutely vital to the country—but factories and other structures can be operated without maintaining plants of their own.



In many ways the maintenance of an individual power plant results in great economic waste. To operate a steam-driven factory or a private electric generating plant requires the daily supply of a considerable quantity of coal. This is wasteful because a small plant gets hardly more than five per cent of the available energy of the fuel, whereas the central power plant burns coal at an efficiency of approximately twenty per cent.

The question of man-power is of great importance at this time, for with no power plant to maintain, each factory or building can release skilled engineers and electricians—and the Government needs such men, and will need more, as merchant ships under the American flag are made ready for sea.

Then in the shipment of the quantity of coal necessary for such plants, just so much space is required in freight cars, and the railroads are taxed to the utmost now to make deliveries that are absolutely necessary. So hard pressed are the roads that stringent rules have been laid down covering the class of freight carried in certain types of cars, and embargoes on other freight shipments are being enforced.



An illustration of the value of space in freight cars is seen in a recent report from the Food Administration at Washington. In order that every square inch may be utilized certain shippers are doing away with case goods and freighting their products in bales. Through the use of a baling machine it is possible to just about halve the bulk of some classes of goods. Socks and uniforms are mentioned as being particularly adaptable to this method of shipping. In this way one bale of socks will contain about twice as many pairs as could be packed in boxes to be shipped in a case.



The space thus gained is available for other and more urgent shipments—food perhaps in the case of closed cars. And just as it is necessary to conserve space in cars used for the shipment of foodstuff so it is necessary to save space in the cars used for the shipment of fuel. It is not practicable to squeeze coal into a smaller bulk. It is practicable though to reduce its consumption to the lowest possible point, and the less coal that



## The Edison Monthly

is burned the greater the relief to the coal-carrying railroads.

Here are a few of the factors which must be considered when the small power plant is under discussion—the relative efficiency in coal consumption, the added burden to the railroads, the requirement for skilled men, an added congestion to city traffic in hauling coal through the streets, and again in removing ashes. These are factors of great importance, and they point out that our coal must be conserved. And the coal consumption in our cities can be reduced, and reduced very greatly if the small power plant and the steam-driven factory will close down their boilers—even though temporarily—and avail themselves of the resources of the electric central stations which serve their communities.



American-made incandescent lamps in the mines of Africa, American-made electric fans as a substitute for the man-driven punkah of India, American-made telephones carrying with facility the jargon of the peoples of Asia, American-made motors providing the driving power for factories in all parts of the world—these are some of the results of the great increase in the exportation of American-made electrical products. For the fiscal year 1917, according to the National City Bank of New York, the exportation of American-made electrical goods aggregated more than \$50,000,000.

In a measure this is because markets formerly supplied with European made goods can now be supplied only from this country. But it is equally

true that the quality and the workmanship of goods "Made in the U S A" have had a great deal to do with their increasing use.



In 1900 the value of exported electrical goods was only \$6,000,000. In 1911 the exportation had increased to \$10,000,000 and in 1914 to \$20,000,000. These increases were all due to a natural demand for the goods uninfluenced by war conditions. There can be no question but that the greater part of the increase during the past three years would have been realized even had there been no war to throw so much of the business to American manufacturers.

Says the bank report of the exportation of electric fans, "Of nearly half a million dollars worth of electric fans exported in 1917 the largest market was in India where the boy operator of the 'punkah' (a swinging fan suspended from the ceiling) holds the world's record for somnolence, while Hong Kong, the Straits Settlements, China, Japan and even Siam show a disposition to substitute the new fangled but always reliable breeze producer for the uncertain methods of earlier generations."



It has been relatively easy for American salesmen to secure orders during the past three years. When Europe again competes for the world trade, the task will be more difficult. It is then that quality will tell, and there is no reason to believe that in quality American goods will ever have to take second place to those of any other country.



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

When Night Folds the Towers and Cables of the Great Brooklyn Span

# A World-trade Centre

A GREAT World Exposition is shortly to open in West Forty-second street. More remarkable still, it is going to remain there. There will be no Courts of Honor or Towers of Jewels, but there will be thirty stories filled to the limit with displays of goods from every country and district on earth.

This unique enterprise is the accomplishment of that world-reaching commercial factor, the Bush Terminal Company. For some years the foreign trade that has passed through its hands has increased so rapidly that the figure for 1916 aggregated one-third of the whole oversea business of the United States. In view of the volume and diversity of the interests involved, it was desirable if not absolutely necessary that these interests, both buying and selling, should be given facilities for getting together to the best advantage. It was to meet this need that the imposing structure now nearing completion was planned.

The three lower floors of this \$2,000,000 building are given over to what is known as the Buyers' Club. Such will be the furnishings and conveniences now under way in this part of the building that the member will be as well provided for as at any high-class club in the city.

A conspicuous feature of the ground level is an extensive lounge supplied with telegraph, telephone, cable and ticker connections and flanked with retiring rooms. A vestibule opening beyond the foyer gives access to high-speed elevators which, together with

all the other building apparatus, are driven by Edison Service.

The front part of the floor above is devoted to a second lounge with an open well in the middle. A centre lounge and reading room, coat rooms, and a buffet extend from this point through to the Forty-first street side. Great pains are being taken to make the reading room as complete in reference data as possible, and foreign and domestic sales experts will co-operate with trained librarians in making this feature an invaluable asset to manufacturers in every line.

Finely appointed conference rooms are nearing completion on the third floor along with special offices for exhibitors. An outstanding attraction on this level is an auditorium which is designed not only for lectures and concerts but for fashion parades and such motion-picture exhibits as manufacturers may care to make of their plants and processes.

## *Ornamental and Lighting Fixtures*

These three floors are also of more than ordinary interest both to the interior decorator and the lighting expert. The idea of Helmle and Corbett, the architects, was to create a series of Old English interiors which, while notably modern from the standpoint of personal comfort and business convenience, would at the same time be spared any decorative note at variance with this fine old style of ornament.

A wainscoting of weathered oak that reaches in some cases to the ceil-



## The Edison Monthly

ing has been so cleverly worked out as to appear centuries old. With ceilings old ivory in tone and floorings of dark red tile, these interiors give the impression of a fifteenth-century manor house. The feeling is heightened by appropriate furnishings and by windows and screens leaded in the traditional fashion.

The lamps of various types that will be used represent a selection from designs submitted by six of the city's best known fixture concerns. The successful series, the work of Mr H E Watkins, of Schroeder Lamp Works, employs the electric-candle motif exclusively for brackets, standard lamps, and chandeliers, which in turn revert to fixtures used centuries ago in English country houses. Of wrought iron for the most part, with a dash here and there of brass or gilding, these graceful old patterns blend perfectly with their antique backgrounds. The pains taken to preserve this venerable impression is seen in even so small a matter as a variation in the lines of the standard fixtures that will figure in the ground floor lounge. By this means even the suggestion of reproduction will be absent and the lamps instead will seem to have been gathered from different collections. Though the designing of the table lamps needed for actual reading was a trifle more difficult, the problem has been successfully handled by means of wrought iron and shades of dull-toned silk.

The building throughout its remaining twenty-seven stories will be devoted to the offices and the private displays of its club members, each of whom will show samples of his products to the extent of one or more



*Heinle and Corbett, Architects*

Edison Service Not Only Constructed But Is Now  
Supplying Light and Power to This Great  
Bush Terminal Structure

## The Edison Monthly

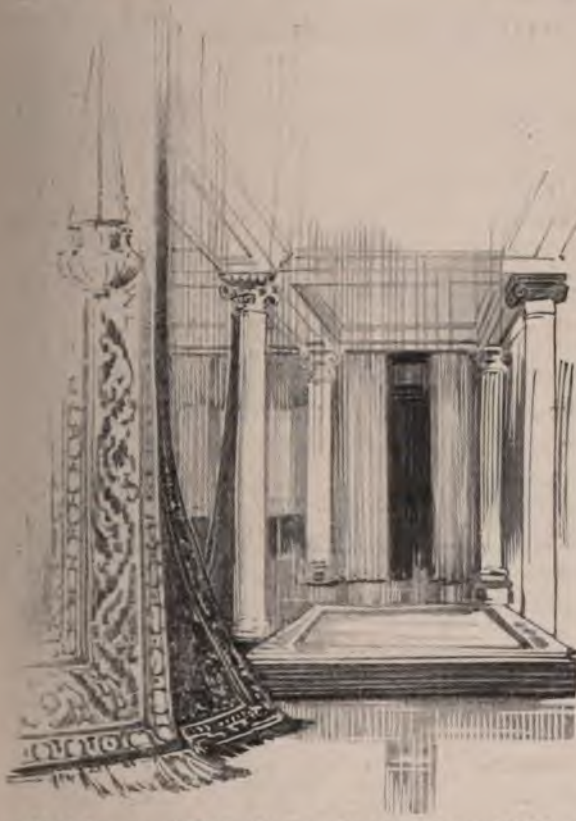
exhibit spaces. While some floors will be occupied by a single industry others will be taken up by exhibitors whose products are related. The merchandize already assured covers apparently every industry and reflects the buying needs of all quarters of the globe.

No pretence of decoration has been made on these floors, yet the neglect is intentional as the plainest sort of interiors were felt to be best adapted to the needs of the case. The lamps employed here are of the X-ray reflector type. This was found after exhaustive tests to shed a peculiarly even illumination free from shadows.

Buyers will not only make their selections in these hundreds of show-rooms, but expert shipping and forwarding facilities will be provided them. Instead of undertaking individual foreign shipments with the obvious trouble, expense, and delays, the manufacturer need only put a carload or any part of a carload on the track at his factory consigned to Bush Terminal and then forget about it. The shipment is received in the service building in the heart of the Terminal property. Here special features and the equipment of the service are brought into play and the shipment is unloaded, repacked as the circumstances ahead of it

may require, and re-shipped to its ultimate destination. Experts in charge of this work are kept fully informed of the essentials of all forwarding problems.

In short, the diversified service of the Bush Terminal substitutes for an Eastern factory or assembling plant, a stock-room or forwarding plant. The Terminal covers two hundred acres and comprises 123 warehouses, sixteen industrial buildings, and one of the most modern storage installations in New York. Here also are thirty miles of railroad tracks with the Terminal's own locomotives, automobile trucks, floats, lighters, and tow-boats. Eight of the largest piers in New York City



Much Importance Will Be Given the Showing of Oriental Fabrics



## The Edison Monthly

extend from the plant where steamers from the Seven Seas load and discharge their cargoes. The Company's faith in Central Station supply is again seen in the use of power from the mains of Brooklyn Edison Company.

The installation for the great building in Manhattan, totals 3500 lights and 375 horsepower.



Typical Display Space Devoted to Electrical Goods

### Electra

Electra, spirit of resistless force,  
Potential soul of energy and light,  
The universe is pregnant with thy might  
That finds in nature its mysterious source;  
Though fraught with wonders thy ethereal course,  
Whence lurid lightnings take their fiery flight;  
Thou hast been chained—thy secrets read aright,  
By Thales, Ampere, Edison and Morse.

Transcendent genius, toiling, ever seeks  
To gyve thy thunderbolts from heaven hurled,  
And to great ends their mighty voltage gear,  
That man may scale ambition's loftiest peaks:  
Thus may the voice that speeds around the world,  
Some day be wafted on from sphere to sphere.

*Louis M Grice*

# Electrics in South Africa

THE electric vehicle, like many another factor in electrical progress, might be thought especially typical of this country. That it should already have established itself in as distant a field as Johannesburg, South Africa, is worthy of notice.

The use in that part of the world of this most effective of motor vehicles dates back some five years. At that time the railroad terminating at Cape Town bought fifty American trucks of the Milburn, the General Vehicle, and the Walker makes respectively. These trucks were mostly of the three-ton size, though a few of ten tons figured in the consignment. The new cars, which gradually supplanted steam tractors and gas trucks, were put to work delivering station freight through the streets to various quarters of the city and its vicinity. While such heavy materials as iron and steel fell to the lot of the larger trucks, the

smaller were found of immense use in the delivery of express matter from house to house.

The success of the new vehicles was readily proved and not long after considerable interest was aroused among progressive circles in Johannesburg. The market here for motor cars had been handled for some years by the local central station, the South African General Electric Company, which supplied not only the railroads but the private commercial field as well. By 1915 this wide-awake organization had foreseen the certain advent of the electric vehicle and began by importing small pleasure cars. Though the venture itself was not as successful as had been expected, owing doubtless to the condition of the roads in the neighborhood, a consignment of trucks arriving shortly after this was readily disposed of.

The first of these, five-ton trucks for the greater part, were sold to the breweries, and they soon took over the entire work of the gas cars formerly in use. One of these breweries is using ten of the trucks at the present writing, for not only have they been found more dependable in every way but far cheaper to operate than their gas predecessors.

Presently the Post



General Vehicle Company Delivery Truck in Front of the Johannesburg Garage



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The Milburn Light-delivery Vehicle Used for Short haul Work

Office fell into line. Mail delivery up to this point had been done with the aid of twelve English-built motorcycles. These, however, were abandoned shortly in favor of twelve one-half-ton vehicles the bodies of which, wire-netted affairs required for the purpose, were constructed locally.

By this time the eyes of most of the city's commercial houses were wide open. Though minor sales were made in due course, the next convert of importance was the Central News Agency, a big concern publishing among other journals "The Star," of more than local fame. This periodical is today hustled about the city and its outlying districts by swift-running electric wagons.

So successful had the electric vehicle business become at this juncture that the Central Station found it advisable to extend its activities, whereupon the service idea was introduced. Cars are sold without

batteries from a general garage. The garage in the meanwhile keeps quantities of batteries charged in readiness for the various cars as they come in. Such indeed is the perfection of this system that for \$39.50 a month a car is not only kept in batteries but is cleaned as occasion requires and maintained in repair.

The use of electrics in this quarter is expected to increase in proportion with the highway improvement which is now being undertaken. Their use for exclusive city work had already exceeded expectations. It will be of interest to mention, by way of closing this progressive account, that in one case at least the speed of these vehicles was found excessive. The Post Office at an early date had a number of battery cells removed from each of its cars as the speed of twenty-five miles per hour was judged undesirable for the work in question.

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### Electric Cooking for the Army

A PORTABLE field kitchen that includes not only electric ranges for cooking but an iceless refrigerator for the preservation of foods is one of America's important contributions to the War. The whole apparatus is mounted on a Ford chassis, and the same engine that transports the kitchen drives the generator which provides current for the range and for the operation of the electric refrigerator. The engine also operates a centrifugal pump which supplies the forty-gallon boiler.

The equipment is the invention of Ansen S Rice, and is being built by the General Electric Company. It is capable of feeding 500 men, supplying 600 incandescent lamps, or running small repair shop motors to an aggregate of eight horsepower. It can also

boil 120 gallons of water in less than two hours.

The electric oven, 18 x 24 x 21 inches accommodates seventy pounds of beef, 150 pounds of flat biscuits, or provides an 18 x 24 frying surface. Heating is supplied by four 9 x 12 General Electric heating plates.

Back of the oven stand four stock kettles made of Monel metal. Two of these kettles hold twenty-seven gallons each which means fifty-four gallons of soup or stew, or cooking space for twenty-four hams. The kettles are built on the fireless-cooker principle.

Two twenty-gallon tanks stand at the rear of the kitchen and can be used for coffee or tea. Two forty-gallon tanks on the tail board can be heated either by electricity or by exhaust heat from the internal combustion engine.



The Johannesburg "Firestone" Agency Uses an Electric Truck for Its Deliveries



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### Baling by Motor Power

THE use of electric power in export industries, including cotton and linen goods, is as general as one acquainted with up-to-the-minute processes would expect. Its use as a baler or packer is unusual, however.

Such are the proportions to which the cotton and linen goods business has grown that the ordinary means of preparing the cloth for shipment proved inadequate. This was shown not alone in the matter of speed but in the actual quality of work done. It is one thing to do up an order of cotton goods for the easy conditions of shipment in the country itself, but the difficulties of an overseas journey present conditions radically different, and to meet these it is necessary to pack and bale on scientific principles.

Neuss, Hessline and Company's solution of the matter was to get an electrically operated hydraulic baling press. Its way of working is interesting. The cloth to be baled—a piece possibly of 3,000 yards—is laid on the lower table of the press on which a sheet of burlap of the needed size, reinforced by a sheet of absorbent paper, has already been spread. In

the case of goods destined for the humid lowlands of Central America, a third wrapper is provided in the shape of water-proof oilcloth.

Once the motor has been set going this lower table rises slowly until the cloth is tightly wedged against the table overhead. A full eighty-ton pressure is exerted at this point and the big bale of cotton or calico, as the case may be, is reduced to a solid and compact mass.

Stout steel bands that appear on the finished bale are put on after the burlap is secured, through channel openings in the pressure tables. The bands, once passed through these grooves, are adjusted by a buckle, and when the pressure is removed the whole bundle, bands and all, becomes rigid.

The beauty of this arrangement is that the package cannot be tampered



*Photographic Bureau of The New York Edison Company*

These Electric Sample Cutting Machines Are Like Paper Cutters Except for a Blade that Pinks the Edges

## The Edison Monthly



*Photographic Bureau of The New York Edison Company*  
Sewing the Burlap About the Bale While the  
Hydraulic Pressure Is Still on

with in any way without the attempt showing. Bales are not only made up in the 3,000 and 4,000-yard sizes, but in smaller dimensions suited to the mule-back transportation in vogue in many southern countries. A press, such as the one described, can handle forty and more bales a day.

The firm enjoys another advantage through the use of this baler. Under the tremendous pressure exerted, the bundle is compressed to perhaps half the bulk it would take if the shipment were to go in cases. This not only saves freight, but due to the bundle occupying less room it makes possible increased shipments of other commodities. And in these times such saving of space is of importance to the whole nation.

Some time previous to this the company installed an electric machine for the cutting of samples. This is a big, heavy-bladed apparatus not

unlike the paper-cutters familiar to every printing establishment. It does not at present, however, enjoy a monopoly. In fact, it has largely been replaced by a newer electric device that not only cuts the cloth but pinks its edges at the same time. While this particular knife needs frequent sharpening, the results in the saving of cloth are more than warranted.

Two elevators and a sidewalk lift complete the electrical equipment of this modern establishment.

### A White Witch

Were Cotton Mather living now—  
(He, of the witchcraft craze)  
He'd rend his clothes and wring his  
hands

At our ungodly ways:

I simply press a button small,  
And, be it dead o'night,  
This room, or that—my clothes-press  
huge,  
Gleams with electric light;

Do I desire to loaf in bed?  
My reading lamp is ready,  
(Beneath its rosy shade) to shed  
Effulgent radiance steady!

Small shrift my quaking soul wou'd  
get,

If he such sights might view:  
"Anathema!" I hear him groan,  
And "Maranatha!" too!

But—Cotton Mather's turned to  
dust,

And I commit each day  
Witchcraft like this, mere thought of  
which  
Had made him swoon away!

*Mazie V Caruthers*



# Why is the Weather Vane?

THE reader who can recall when August Brentano was in business at 708 Broadway will remember too that the town's specialist in weather vanes and copper signs, Christopher Washburne, held forth on the second floor of the same building. But the chances are that any reader with such a perspective has long since accompanied the original Washburne and Brentano to other scenes, even as the old New York Hotel that stood on the corner opposite has likewise passed to a deserved reward. One may remember, however, when the Washburne Company marketed weather vanes at 10 Cortlandt street, and it is quite likely that he has heard, at least, of the present Washburne establishment at 207 Fulton street.

To style the place a copper and hammered brass museum will sound fantastic. It is not, in fact, one whit as fanciful as these four lofts

full of griffins and fountain pens, wisdom teeth and automobiles, battleships and Yorkshire hogs, fish and wedding rings, with a host of other creations from objects natural or man-made that meet the astonished eye at every angle. The frequent use of electricity in the manufacture adds seemingly the final touch of incongruity. Not, of course, but what the



*Photographic Bureau of The New York Edison Company*

The Venerable Genius of the Washburne Establishment. Neither the Fish of the Sea, the Fowls of the Air, Nor a 2:10 Race-horse Present Difficulties to Him

## The Edison Monthly



*Photographic Bureau of The New York Edison Company*  
A Motor-driven Lathe and Emery Wheel See Constant Use in This Skillful Metal Working

electric motor insures a more rapid output of these curious products and presumably a more flourishing condition of the business. It is merely such ultra up-to-dateness hobnobbing with patterns and formulas of fifty years' standing that strikes one at first as extraordinary.

The workshop proper employs all the apparatus of the usual tin and sheet iron working shop together with the heavier apparatus for metal working. Here are cutters and crimpers and rollers, and, filling up a generous space at one side, a turret lathe with a motor punch for a neighbor. Electricity also operates a grinder, a most necessary adjunct in work of this sort.

How, with even these several mechanical aids, the factory can turn out the detailed and difficult work displayed on all sides, does not at once appear. A farther corner, however, gives an intimation. For here is found a veteran of the hammer and soldering iron embowered in patterns

and very busy at what appears to be a new one. It literally is a bird, an eagle or perhaps a species more domestic. The various parts of wings and body are on the bench before him, ingeniously hammered copper the lines and embossings of which have been pounded into realism on an old wooden block close at hand. They are at present being soldered, a process simple

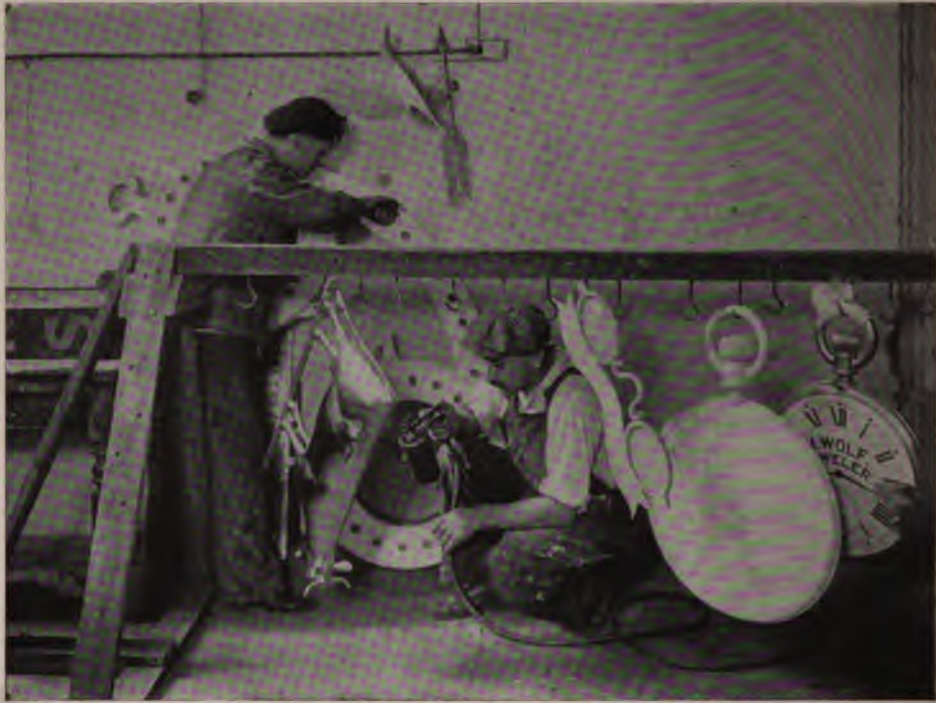
enough to watch and among the most difficult of all things actually to do. Yet wings and tail-pieces become united to the thickly feathered body till nothing is wanting but head and feet. To produce these in the same manner, that is, by hammering out, has proved a stunt too minute even for such experienced hands.

These very necessary parts are made in the loft above, where a complete casting outfit is found. The moulds here are hardly less of interest than the patterns below stairs and represent quite as wide a variety. In other words, fantastic as many of the creatures depicted, they all require head and feet or talons as the circumstances demand. The curved beak and keen eyes of an eagle, the flashing tongue of a dragon, the bristling comb of a rooster, or the shapely head of a racing horse, all emerge from the casting boxes perfect in shape and ready to be united to their respective bodies.

One of the most important phases of



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**An Electric Paint Spray Has Been Found Invaluable in the Finishing of Vanes and Signs of All Sorts. Note the Electric Spectacle Sign in the Back**

the manufacture is the making of the spheres on which these curious vanes are set. The joining of the two is done at an electrically blown forge in still a third loft, where the lately cast feet of the creature selected are welded together. The use here of a motor bellows enables the 'smith to devote his whole attention to the painstaking work before him where a small slip, a moment of carelessness, might discount all the care previously taken in the forming of the several parts to be joined.

A fourth floor is given over to gilding and painting. And electricity enters in here in a most important capacity. In fact, the painting itself is done by means of the electric spray-brush, thanks to which the

pigment is applied not only more rapidly but more evenly to the various surfaces. It has shown itself of very special effectiveness in the painting of metal netting. Such netting when treated by the ordinary brush shows almost inevitably the overlapping of the strokes. When painted by the electric spray, the wire is covered with absolute evenness.

While plain gold-leaf covered copper in the form of lettering or figures is frequently turned out, there has risen of late a demand for signs in which electric lights can be introduced for border or transparency effects. The creation of these electric signs constitutes one of the most painstaking, and paying, specialties of the Washburne factory.

# North Brother Island

**D**URING the early days of New York, progress seems to have passed by the bare stretch of land, low lying in the East River now known as North Brother Island. Its unattractive physical aspect may account for its remaining unoccupied save for an occasional poor farmhouse. Not until about 1880 was the Island put to much active use and then it became a hospital—as it has been ever since.

At this time, when the Harlem River still marked the northern boundary of New York City, it also marked pretty definitely the limits within which facilities could be secured for the treatment of so contagious a disease as smallpox. The little towns to the north of Manhattan, so the story goes, used to ship their inconvenient sick across the Harlem River. There the New York health authorities would

take hold and send them for care to the hospitals on Blackwell's Island.

This easy way of shirking responsibility worked beautifully for the small-townners until at last New York rebelled, obliging the Westchester authorities to build a small shack on the flats near the East River. When, some time after, the citizens of Westchester discovered that one of the smallpox patients harbored in the shack was a negro, their indignation expressed itself in burning the shack and turning the sick man with his attendant afloat in a rowboat on the East River. The men rowed to the bare shores of North Brother Island, there to take refuge in a deserted old farmhouse—which so became the first hospital for the care of smallpox sufferers. This was about 1880.

From then until the present day the island has been used for hospital purposes. For a short time Queens County owned it, but soon New York City took over the title through the passage of a legislative act. This was in order to relieve the congestion on Blackwell's Island, which was also a hospital center. Buildings were rapidly put up—a brick hospital with accommodations for eighty cases, an administration building, laundry, physicians'



*Illustrations by Courtesy Department of Health*

Scarlet Fever Building Where Patients Receive Expert Attention and Care



## The Edison Monthly

and nurses' quarters and other small buildings. Completed in 1885, many of these buildings are in active use today after alterations to meet changing requirements.

That same winter of 1885 New York City suffered from a frightful epidemic of typhus fever and the new Riverside Hospital opened its doors to help deal with the situation. Almost from the beginning the hospital was overcrowded, for in addi-

year attracted widespread attention.

The Central Station was able to be of more than usual service to North Brother Island when in 1912 electricity was used to thaw out the frozen six-inch pipe which supplied water from the mainland. It was during the unusually severe winter of that year that the pipe froze solid and defied all the city's efforts to thaw it out. For a month or more the patients had been without water, except for what could



North Brother Island With Some of Its Modern Hospital Buildings

tion to New York City patients, it cared for newly arrived immigrants. So every year has seen some addition to equipment, until at the present time it is able to care for about six hundred patients.

Of course, the question of light and power came up as soon as the Island's equipment in buildings reached at all large proportions. In 1899 the city authorities arranged for the installation of Central Station service, and the work of laying a submarine cable began. This was very much of an undertaking in those days. Its successful accomplishment that same

be brought over in barrels. The heating of the pipe with electricity and the melting of the ice was accomplished at a most opportune time, for even then arrangements were under way for the transfer of the patients.

Of late years the character of the work done on North Brother Island has changed. Smallpox patients are no longer taken, but tuberculosis cases are being treated in increasing numbers. One of the latest improvements to the Island was made by filling in about four acres of land on the south and east, thus providing room for four new cement pavilions.



## The Edison Monthly

### "...the Little Things That Count"

**W**HENCE come the fly-swatters, washboards, nutmeg graters, clothes-pins and the hundred and one other household necessities which can be purchased for a song in any novelty store? When one pauses to think, this question proves puzzling. The natural assumption is that these articles, being so cheap, yet representing so many manufacturing processes and so much material, must be a by-product or at best a secondary product of some large manufacturing firm.

This conclusion, while it may hold good in some instances, is not correct in the case of one particular factory in Pearl street. Here is a manufacturing plant devoted entirely to the production of these invaluable little household knick-knacks, turning them out in tremendous quantities, and profitably, too, if forty-one years of business success indicates anything.

The owner of this interesting establishment appears to have concentrated his efforts on manufacturing only those articles, which with special machinery, can be turned out in great quantities by a small working force. This is indicated by the fact that there are several different types of machines in the establishment which are absolutely automatic. They are started in the morning and are never looked at again until time comes to shut them down, except perhaps to supply them with raw materials now and again. Typical of these is a machine which straightens and cuts wire for fly-swatters. A big roll of wire is adjusted early in the morning, after which no one pays any attention

to it except to gather up the strips of wire as they are needed.

Mr Charles Goldstein, the proprietor, is an inventor of machinery of this kind and it is said that the two upper stories of the building are crowded with weird contrivances of all sorts that do a variety of tasks.

### *Use of Electric Motors*

Among the things that are manufactured in the privacy of these upper stories is a household clothes-dryer. This is a collapsible affair that, when not in use, folds up into a very small space. It can be adjusted to accommodate one article of clothing or several pieces, yet for all its convenience, and the amount of workmanship and material used to build it, the price at retail is ridiculously small. It was with the addition of this article to his list of products that electricity was first brought into the Pearl street factory.

Saws are required to cut the sticks from which the clothes hang. Mr Goldstein realized that the use of a gang of small circular saws would economize in space, time, power and labor. These saws cut six strips of wood from a single piece of timber in the time required to cut one strip with a single saw and so the saws were installed. When they were to be put into operation the proprietor discovered that the engine, which for forty years has supplied power for the factory, was not equal to the added load. The manufacturer immediately turned to the central station and arranged for the installation of service for a ten horsepower motor. To this motor he connected the saws, and while he was at it, he provided a vacuum outfit to collect the sawdust.



# By Smoke and Flash

**S**IGNALLING and the apparatus of signalling—by way of reverting to a former theme—are, quite as much as language itself, the result of a process of development. Theoretically, any of the senses might serve as a medium for the transmission of secret information, but the use of tastes and odors for this purpose is confined chiefly to fairy-lore and other fiction, sight and hearing being the only senses which are practically available. Hence the usual classification of signals as visual and auditory.

Of these, without doubt, the visual signal is the more important, although the range of auditory signalling was greatly increased by the introduction of cannon and the invention of the fog horn, siren and whistle. In modern aerial warfare the auditory signal is frequently resorted to, the source of the sound being the engine of the aeroplane, and the interruptions necessary to secure the time intervals which adapt the message to code being produced by means of a switch. The only important advantage which the auditory signal can claim over the visual is its adaptability to adverse weather conditions, but, while by the use of a code secrecy may be secured, the range of sound is limited and in time of battle the booming of cannon is a disturbing factor.

Nevertheless, auditory signals are employed for a variety of purposes. One of the latest English contrivances, which, it is hoped, will not become a necessity in America, is an electric alarm designed to advise

householders that Zeppelins are in the offing. Homes supplied with these useful instruments are warned of approaching danger by the shutting off of the electric current, the interruption causing an electric bell to ring continuously and a light, sufficient for temporary use, to appear, the current for bell and light being supplied by a small battery.

## *Importance of the Semaphore*

Among visual signals for use either by day or by night, the semaphore has long occupied a position of trust and importance. In its simplest—and perhaps aboriginal—form, as found among the Eskimos, who require no other apparatus than that provided by nature, it consists of the signal man himself with one or both arms laterally extended at angles required by the message of his code. Standing upon a hill, where his movements are plainly visible at a distance, and with his body facing the observer, he signals his message, "Come here," by moving his right arm upward and downward, while by a similar movement of the left arm he signifies that those indispensable carriers, the Eskimo dogs, must be brought. By other signs this human semaphore transmits the information that deer are to be found in his locality, and in the sign language of the frozen north he may relate the story of their capture.

Probably the semaphore, which has played so great a part in naval, and to a less extent in army, signalling,



## The Edison Monthly



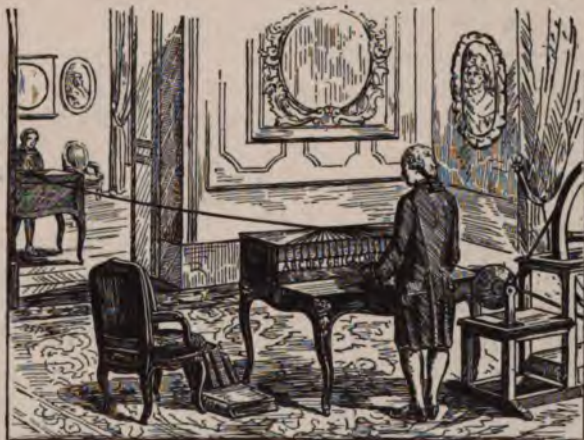
*Drawn by Edna Hood Lissak*

Acetylene Lantern Used in the Okanogan National Forest, Washington

had its origin in such a natural adaptation of the language of gesture to distant communication. But its history is obscure, and when, after the middle ages, the semaphore was introduced into Europe, its use, like that of spectacles, telescopes and other inventions which extended the range of the senses, was opposed on religious grounds. In principle it consists of an upright beam of varying length, with a cross-beam turning on a pivot and bearing at each end a smaller beam, capable, like the first, of being rotated through various positions. The semaphore was adapted to naval and railroad signalling

by night by hanging lanterns from the arms, thus indicating their position. On shipboard the instrument was sometimes set up on the deck and sometimes fixed at the mast-head.

The British Admiralty adopted the semaphore from the French and in the same year that M Chaffé brought out his invention Lord George Murray's shutter telegraph appeared. It consisted of six shutters working upon a central pivot. By exhibiting the flat side of the shutter or presenting the edge (thus concealing the shutter) code messages could be given. During the Napoleonic wars this method of signalling was employed, and it is stated that as a record performance messages were sent from Plymouth to London in ten or twelve minutes, although in 1806, in the year that this was accomplished, these places were separated by a three days' journey. However, the shutter telegraph gave place to the semaphore, which in turn yielded on the last day of 1847 to the superiority of the telegraph.



*Drawn by Edna Hood Lissak*

The Electric Telegraph of Lesage, Built in Geneva in 1774, Provided a Wire for Each Letter of the Alphabet. A Static Machine Provided the Necessary Current



## The Edison Monthly

As the fate of armies has often depended upon the speedy and accurate transmission of a message, it is strange that signalling received so little attention until the seventeenth century was nearly spent. To be sure, guns and lanterns by night, and by day flags displayed in various parts of the ship had, in naval manœuvres, served to transmit orders, but no approach to genuine serviceability was attained until, in 1780, Admiral Kempenfeldt produced his code book with flags and messages upon opposite pages. A few years later improvement was made by numbering the flags from 1 to 10. It was found that by this means no less than 310 messages could be sent by the admiral to his fleet, although the number of possible responses was more limited. Then with the beginning of the nineteenth century the system of Admiral Sir Home Popham, which, by making use of lettered flags in pairs, provided for the sending of messages not prearranged, was adopted in the British Navy, and it was with

this system that Lord Nelson signalled to his ships the words that have since fired the hearts of many Englishmen, "England expects every man to do his duty."

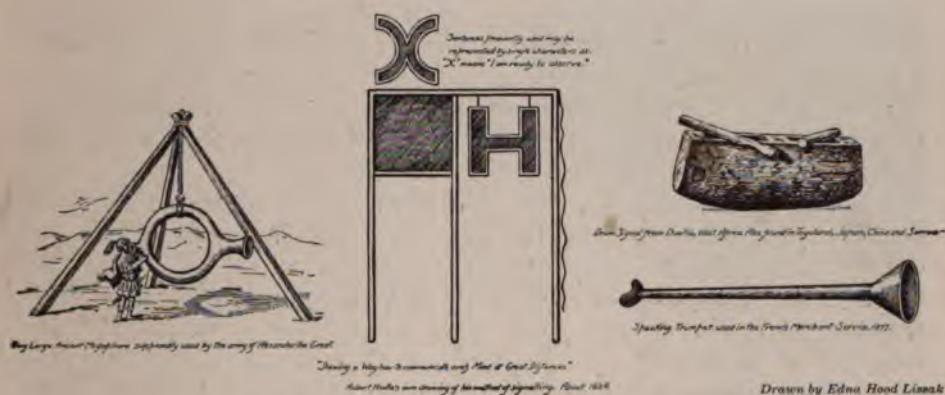
In the navy, conditions permit the use of many flags of various colors, their color and position one above another indicating the message of the code book, while for signalling at distances too great for colors to be distinguished the message is conveyed by the shape and position of the flags. Flag signalling in the army is to a much greater extent dependent upon motion, as seen in the wig-wag system, which was used in the United States before the adoption of the Morse code. By waving a flag to the right and to the left any desired combination of the numbers 1 and 2 could be signalled, the numbers corresponding to letters.

But one of the most effective forms of signalling is yet to be mentioned. That it possesses the merit of extraordinary secrecy is known to every



The Telephone and the Heliograph in the National Forests of California. Messages Are Received by Heliograph from Outlying Stations and Relayed by Phone to Headquarters

## The Edison Monthly



### Various Devices for Transmitting Intelligence

schoolboy who has profited by the fun-producing properties of a small pocket mirror to dispel the gloom of study hours. Rapidity of operation, portability and range are other properties which have made the heliograph one of the best instruments for signalling that have ever been devised. It consists of a small mirror carried on the end of a bar, which is mounted on a tripod, and it is so operated by means of a key, which throws the mirror out of alignment that light may be reflected upon a second mirror at the opposite station. The light rays are directed as a rifle provided with a peep-sight would be aimed, a small unsilvered spot in the centre of the mirror serving instead of the rear sight and the sighting bar taking the place of the rifle barrel. The sighting of the instrument is not complete until by the use of slow motion screws the mirror has been so turned that its unsilvered portion has cast a "shadow spot" upon the exact centre of a disk carried by the sighting rod. When this is accomplished the flash is visible at the receiving station.

The secrecy of the heliograph mes-

sage is insured by the fact that at a distance of one mile the circle of illumination caused by the flash is only 16 2-3 yards in diameter, the diameter increasing with each mile by the same amount. The extreme range of the heliograph, being limited only by the convexity of the earth, is asserted to be, under favorable conditions, from ninety to one hundred miles, but messages have been transmitted by its means over longer distances, notably that sent by Capt. Gassford, of the United States Signal Corps, between Mt. Uncompahgre in Colorado and Mt. Ellen in Utah, the distance being 183 miles. In all recent wars it has played an important part, and it is said that in the Boer War the British placed chief reliance upon this mode of signalling. In 1880 it effected the release of the besieged garrison of Kandahar, which for several hours carried on communication with Lord Roberts' relieving force over the heads of the enemy. Recent modifications have been made, but the principle of the heliograph, known also to the Indian, who with his mirror flashes messages from hill to hill, remains the same.



## The Edison Monthly



*Decoration by Leslie Crump*

## The Edison Monthly

### Song of a Kite

*A papered frame and a soaring string,  
The eyes of a Franklin, searching space—  
And this is the song that the kite shall sing  
While time and the winds of God have place.*

Light when the night is drifting,  
Light like the radiant day  
Through the sad shadows sifting—  
Shadows that flee away:  
Light in a burst of flame;  
Light in a whelming blaze;  
Light like a glowing fame  
Deathless as deathless days.

Power from the mystic sources,  
Secrets no man may know  
Throb from the hidden forces  
Steady as rivers flow;  
Force in a quenchless stream,  
Bitted and harnessed fire;  
This is a stupendous dream  
And the deed that does not tire!

*A papered frame and a soaring string,  
The eyes of a Franklin, searching space—  
And this is the song that the kite shall sing  
While time and the winds of God have place.*

Olin L. Lyman



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Motors (Concluded)

#### General Uses

Boker H & Co Inc—101-103 Duane St  
 Bell Electric Motor Co—30 Church St  
 Burke Elec Co—30 Church St  
 C & C Electric & Mfg Co—90 West St  
 Century Electric Co—30 Church St  
 Colonial Fan & Motor Co—150 Chambers St  
 Crocker-Wheeler Co—30 Church St  
 Diehl Mfg Co—149 Broadway  
 Eck Dynamo & Motor Co—46 W Broadway  
 Electro-Dynamic Co The—Ave A Bayonne N J  
 Emerson Elec Mfg Co The—50 Church St  
 General Electric Co—120 Broadway  
 Holtzer-Cabot Electric Co—83 Warren St  
 Imperial Elec Co—253 Broadway  
 Lincoln Electric Co—149 Broadway  
 Mechanical Appliance Co (Watson)—154 Nassau Street  
 Northwestern Mfg Co—243 Canal St  
 Peerless Elec Co—147-9 W 35th St  
 Reliance Electric & Engineering Co—90 West St  
 Robbins & Myers Co The—30 Church St  
 Sprague Electric Works—527 West 34th St  
 Triumph Electric Co—114 Liberty St  
 Wagner Electric Mfg Co—30 Church St  
 Western Elec Co—463 West St and 105 W 40th St  
 Westinghouse Elec & Mfg Co—165 Broadway

#### Inspection—Maintenance—Repairs

Blackall & Baldwin Co—39 Cortlandt St  
 Bogart Co A L—55 Barclay St  
 Borne Chas A Co Inc—35-37 Wooster St  
 Comstock Associate Co—101 Park Ave  
 Conlan Electric Co—86 Walker St  
 Elec Machine Tool Co—50 Church St  
 Elec Motor Insp & Rep Co—1 Beekman St  
 Elec Repair Co—548-550 W 23d St  
 General Electric Inspection Co—237 Fulton St  
 Globe Elec Cont & Rep Co The—434 Broome St  
 Graham Bros Co—585 Hudson St  
 Hammill John—55 Ann St  
 Harlem Electric Co—6 E 116th St  
 Jordon Bros Inc—74 Beekman St  
 Kelting Electric Co—119 Pearl St  
 Leve Robert E—19 E 32d St  
 Maintenance Co The—417 Canal St  
 National Electric Co—89 Centre St  
 Naumer Elec Co—96 Beekman St  
 Naylor & Newton—243 Canal St  
 Peerless Engineering Co—147-49 W 35th St  
 Russell & Co—56 W 45th St  
 Schoenberg R A & Co—906 6th Ave  
 See Van Dyck C—39 Cortlandt St  
 Weiderman Geo Elec Co—35-37 Rose St  
 Westinghouse Elec & Mfg Co (Repair Shop)—467 10th Ave cor 36th St

#### Starters and Controllers

Allen-Bradley Co—50 Church St  
 Automatic Switch Co—4 White St  
 Curtis-Carhart Co Inc—150 Chambers St  
 Cutler-Hammer Mfg Co The—50 Church St  
 Electric Controller & Mfg Co The—50 Church St  
 General Electric Co—120 Broadway  
 Industrial Controller Co—50 Church St  
 Rowan Electric Mfg Co—39 Cortlandt St  
 Ward Leonard Electric Co—Mount Vernon N Y  
 Westinghouse Elec & Mfg Co—165 Broadway

#### Used Motors

Archer & Baldwin—114-118 Liberty St  
 Cutter Co F B—50 Church St  
 Graham Jas A—30 Church St  
 Holcomb & Co D S Inc—241-3 Canal St  
 Klein & Co—208 Centre St  
 Oneida Elect Co—313 Canal St

### Office Accessories

Edison Dictating Machine—Orange N J 114  
 Liberty St N Y C  
 Ensign Elec Calculating Machine—280 B'way  
 "The Dictaphone"—83 Chambers St  
 The Hooven, Owens, Rentschler Co—Woolworth Building  
 "The Millionaire" Elec Cal Mach—1 Madison Ave

### Pumps

Beach-Russ Co—220 Broadway  
 Blackall & Baldwin Co—39 Cortlandt St  
 Boker H & Co Inc—101-103 Duane St  
 D'Olier Centrifugal Pump & Machine Co—503 Morris Building Philadelphia Pa  
 Goulds Mfg Co—16 Murray St  
 Holland Machine Co—1270 Broadway  
 International Steam Pump Co—115 Broadway  
 Lea-Courtenay Co—90 West St  
 Platt Iron Works The—50 Church St  
 Quimby William E Inc—548 West 23d St  
 Rider Ericsson Engine Co—20 Murray St  
 Rumsey Pump & Mach Co—75 Warren St  
 Twinvolute Pump and Mfg Co—30 Church St  
 Western Elec Co—463 West St and 105 W 40th St

### Refrigeration

Automatic Refrigerating Co—50 East 42d St  
 Brunswick Refrigerating Co—30 Church St  
 De La Vergne Machine Co—Foot of East 138th St  
 Electrical Refrigerating Co Inc The—Woolworth Building  
 Johns-Manville Co H W—41st St & Madison Ave  
 Montclair Refrigerating Corp—Woolworth Bldg  
 Shipley Const & Sup Co—Columbia St Bklyn N Y  
 Triumph Ice Machine Co—30 Church St  
 Voss Ice Mach Works—242-252 East 122d St

### Signs

Adams Bagnall Co—114 Liberty St  
 B & B Sign Company—347 Fifth Ave  
 Bilt-Well Sign System (Elec) 113-115 E 15th St  
 Bofinger Bros—146 East 42d St  
 City Electric Sign Co Inc The—444 E 13th St  
 Commercial Sign Co Inc—440 W 40th St  
 Empire Elec Sign Co—162 East 118th St  
 Federal Sign System (Electric)—649 W 43d St  
 Fricker Frederick—430 11th Ave  
 Frink I P—24th St and 10th Ave  
 Gude Co O J—220 W 42d St  
 Manheimer Co The—162 W 34th St  
 Martin P J—306 W 53d St  
 Mechling Charles J—477 Willis Ave  
 Mercantile Adv Co—17 Battery Pl  
 Norden Electric Sign Co Inc—311 W 40th St  
 Opal Sign Co—254 Tenth Ave  
 Pisch Electric Sign Co Inc The—415 W 48th St  
 Prismlyte Co The—8 St Felix St Brooklyn  
 Snow & Co—531 W 46th St  
 Rice Geo H Co Inc—481-87 Sterling Pl Bklyn  
 Strauss & Co—209 W 48th St  
 Strauss L L—74 W 125th St  
 Universal Elec Stage Ltg Co—240 W 50th St  
 Viking Sign Co—527 Fifth Ave

### Sign Flashers

Betts & Betts Corporation—511 W 42d St  
 Phelps Mfg Co—729-31 Broadway  
 Reynolds Elec Co—1123 Broadway

### Supply Dealers

#### Manhattan

Alpha Elec Co Inc—116-118 W 29th St  
 Baily Elec Supply Co—62 Vesey St  
 Bohn Elec Co C C—820 6th Ave  
 Bunnell & Co J H—32 Park Pl  
 Burnet Co The—69 South St & 1800 Park Ave



# The New York Edison Directory

## Manufacturers and Agents (Concluded)

### Supply Dealers (Concluded)

#### Manhattan

Central Electrical Supply Co—4 West 16th St  
Crannell, Nugent & Kranzer Inc—110 W 30th St  
Fox Electrical Corporation—119 W 42d St  
Fullerton Electric Co—109-115 W 26th St  
Goetz A E—55 Barclay St  
Hartt & Morison—780 Sixth Ave  
Killoch Co David—57 Murray St  
Latham & Co E B—4 Murray St  
Leahy J J Electrical Supplies—48 Dey St  
Leveridge Chas W Inc—133 Liberty St  
Manhattan Electrical Supply Co—17 Park Pl  
110 West 42d St, 127 West 125th St  
Metropolitan Elec Products Co—101 W 42d St  
Metropolitan Elec Supply Co—126 W 36th St  
N W Elec Equip Co—35 Vestry St  
Nugent Electrical Supply Co The—7 W 29th St  
Ostrander & Co W R—371 Broadway  
Public Electrical Supply House—62 Essex St  
Royal-Eastern Elec Sup Co—114 W 27th St  
Schoenberg R A & Co—906 6th Ave  
Sibley-Pitman—19-21 West 36th St  
Smith J M & Son—4 E 8th St  
Thomas & Betts Co—105 Hudson St  
Western Elec Co—463 West St and 105 W 40th St

#### Bronx

Bronx Elec Supply Co The—612 Melrose Ave  
Royal Eastern Supply Co The—506 Willis Ave  
Webber Supply Co The—558 Melrose Ave

### Electro-Plating Apparatus and Supplies

Bogue Electric Co C J—513-15 W 29th St  
Green Electric Co W—81 Nassau St  
Munning-Loeb Co—50 Church St

### Specialties

Aladdin Lamp Corporation—52 Vanderbilt Ave  
Alpha Elec Co Inc—116-18 W 29th St  
(Harter Weatherproof Fixtures)  
Bonnell & Co W A—132 Church St  
Bromley-Mercedes Mfg Co (Dishwashing Machines)—1328 Broadway  
Brown Elec Co Wm S—3 W 29th St  
Chapin Co Chas E (Brushes for Dynamos and Motors)—201 Fulton St  
Corliss Carbon Co—114 Liberty St  
Cutler-Hammer Mfg Co The—50 Church St  
DeVeau Tele Mfg Co—472 18th St Bklyn N Y  
Electric Fountain Co The—348 W 42nd St  
Fox Electrical Corporation—119 W 42d St  
Frantz Premier Distrib Co Inc—119 W 42d St  
Fulton-Bell Co—105 W 40th St  
Guarantee Electric Products Co—47 W 42d St  
Howe Scale Co of N Y The—341 Broadway  
Kirkman Eng Corporation—237 Lafayette St  
Mercantile Adv Co—17 Battery Place  
Organ Arthur—114 Liberty St  
Pittsburgh Electric Spec Co—412 8th Ave  
Shelton Electric Co—30 E 42d St  
Universal Elec Stage Light'g Co—240 W 50th St  
Wallace Novelty Co Inc The—25 E 24th St  
Ward Leonard Electric Co—Mount Vernon N Y  
White J H Mfg Co—111 No 3rd St Brooklyn  
Wicks Electric Co—Cleveland Ohio

### Dishwashing Machines

Phillipson, Emil—110 W 40th St

### Switch and Distributing Boards

Anderson Mfg Co A & J M—135 Broadway  
Automatic Switch Co—4-6 White St  
Crouse Hinds Co—30 Church St  
Empire Eng'g & Supply Co—1 Dominick St  
General Electric Co—120 Broadway  
Johns-Manville Co H W—Mad Ave & 41st St

Krantz Mfg Co—160 Seventh St Bklyn  
Le Baron B Johnson—Madison Ave & 41st St  
Metropolitan Elec Mfg Co—Long Island City  
Metropolitan Engineering Co—35 Vestry St  
Pringle Elec Mfg Co—39 Cortlandt St  
Rall Frederick—10 Park Pl  
Sprague Electric Works—527 W 34th St  
Trumbull Electric Mfg Co—114 Liberty St  
Walker Electric Co—50 Church St  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

### Vacuum Cleaners

Alpha Elec Co Inc—116-18 W 29th St  
Bohn Electric Co C C (Santo)—820 Sixth Ave  
Comstock Associate Co (Sturtevant)—101 Park Avenue  
Duntley Products Sales Co—295 Fifth Ave  
Federal Sign System (Electric)—649 W 43d St  
Fox Electric Corp (Hoover)—119 W 42d St  
Frantz Premier Distrib Co Inc—119 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hartt & Morison—780 Sixth Ave  
Hot Point Electric Heating Co—147 Waverly Pl  
Hurley Machine Co (Thor)—147 W 42nd St  
Innovation Electric Co—585 Hudson St  
Metropolitan Elec Products Co—101 W 42d St  
Muenzen Specialty Co—131 W 42d St  
Ohio Co The—1463 Broadway  
Regina Co—47 West 34th St  
Richmond Radiator Co—1480 Broadway  
Schoenberg R A & Co—906 6th Ave  
Sloane W & J (Invincible) Fifth Ave and 47th St  
Spencer Turbine Cleaner Co—101 Park Ave  
Tucc Company The—1457 Broadway  
Univ Vacuum Cleaner Maint Co—47 W 38th St  
Western Elec Co—463 West St and 105 W 40th St

### Vibrators and Hair Dryers

Alpha Elec Co Inc—116-18 W 29th St  
Barker Metal Furniture Co—255 Canal St  
Fox Electrical Corporation—119 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hartt & Morison—780 Sixth Ave  
Jorgensen John—114 Liberty St  
Kandem Electric Co Inc—49 E 21st St  
Manhattan Electrical Supply Co—17 Park Place  
110 West 42d St, 127 West 125th St  
Sanax Co Inc The—125 E 23d St  
Shelton Elec Co—30 E 42d St  
Sibley-Pitman—19-21 W 36th St  
Western Elec Co—463 West St and 105 W 40th St

### Washing Machines

Apex Electric Home Appliance Co—457 Gold St  
Brooklyn N Y  
Brokaw-Eden Mfg Co (The Eden)—119 W 42d St  
Federal Sign System (Electric)—649 W 43d St  
Fox Electric Corp (Eden)—119 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hart Wallace B—(Arora) (Judd) (1900)  
(Cataract)—46 E 41st St  
Home Devices Corp (Modern Home Washers)  
—Bush Terminal Brooklyn  
Hurley Machine Co—147-157 W 42d St  
National Sewing Machine Co—290 Broadway  
"1900" Washer Co—46 E 41st St  
Northwestern Electric Equipment Co (Geyser)—  
35 Vestry St  
Sibley-Pitman—19-21 W 36th St  
Wemlinger Co Inc The—40 Whitehall St  
Western Elec Co—105 W 40th St and 463 West St

### Welders

Lincoln Electric Co—149 Broadway  
Welding Materials Co—114 Liberty St  
Wenzel Siemind Elec Welding Co—30 Church St  
Westinghouse Electric & Mfg Co—165 Broadway  
Winfield Elec Welding Machine Co—50 Church St



# The New York Edison Directory

## Wiring and Installation Contractors

### West of Broadway and Fifth Avenue

Amsterdam Ave 868—Joseph Rice  
 Amsterdam Ave 943—P D Dunn  
 Amsterdam Ave 984—Sam A Grice & Co  
 Amsterdam Ave 1768—The Lincoln Electric & Repair Shop  
 Amsterdam Ave 1989—Manhattan Electrical Maintenance Company  
 Broadway 212—Charles S Borger  
 Broadway 212—A G Pulis Electric Co  
 Broadway 335—Park Sullinger  
 Broadway 853—J Menkes  
 Broadway 1123—William J Shore  
 Broadway 1133—Van Wagoner-Linn Cons Co  
 Broadway 1170—Alliance Electric Co Inc  
 Broadway 1270—Croker National Fire Prevention Engineering Company  
 Broadway 1402—Gagen & Butler  
 Broadway 1929—F W Astarita  
 Broadway 1931—Bull-Duroy Electric Co  
 Broadway 1960—E May Inc  
 Broadway 2304—C E MacCabe  
 Broadway 2304—Frank B Widmayer Co  
 Broadway 2382—Howard S Beidleman  
 Canal St 313—Oneida Electric Co  
 Canal St 417—G E Engineering Co  
 Canal St 417—The Maintenance Co  
 Christopher St 41—W Buch  
 Church St 30—L K Comstock & Co  
 Church St 50—William Braun  
 Columbus Ave 220—Thomas F Carr  
 Columbus Ave 348—H Blumenstetter  
 Columbus Ave 517—Samuel Millinger  
 Columbus Ave 549—Hoffman & Elias  
 Columbus Ave 847—Mariposa Electric Co  
 Cortlandt St 26—Cleveland & Ryan  
 Cortlandt St 39—Blackall & Baldwin Co  
 Cortlandt St 84—Bleye Elec Co  
 Duane St 172—Jas F Hughes Co  
 Eighth Ave 461—A J Buschmann Co  
 Eighth Ave 461—Edward B Stott & Co  
 Eighth Ave 766—H Lauer & Co  
 Fifth Ave 75—H M Walter  
 Fifth Ave 320—J P Hall-Smith Co  
 Fifth Ave 503—Alfred U Keedwell & Co  
 Fulton St 237—General Electric Inspection Co  
 Greenwich St 183—Thomas & Johnson  
 Greenwich St 255—Garret M Ross  
 Hudson St 585—S Edw Eaton & Co  
 Liberty St 120—S Arthur Brown & Co  
 Liberty St 120—Watson-Flagg Engineering Co  
 St Nicholas Ave 1048—George E Ryan Co Inc  
 Sixth Ave 440—A Goldman & Co Inc  
 Sixth Ave 617—Zenker & Siems  
 Sixth Ave 632—John J Finn  
 Sixth Ave 819—Thomas Hindley & Son  
 Sixth Ave 820—C C Bohn Electric Co  
 Sixth Ave 882—P McGunnigle & Son  
 Sixth Ave 906—R A Schoenberg & Co  
 Sixth Ave 1009—John T Whitehead & Son  
 Seventh Ave 360—Louis Freund  
 Seventh Ave 422—Franklin Elec Co  
 Seventh Ave 2286—Nathan Zolinsky

Tenth Ave 466—George E Valley & Bros  
 Tenth Ave 578—Chas F Dunker  
 Thames St 27—McLeod Ward & Co  
 Varick St 143-145—H C Griffin & Co Inc  
 Vesey St 53—F A Frey  
 West Broadway 170—J S Bihin  
 West Broadway 397—A Fox  
 West Broadway 490—X L Machine & Elec Co  
 West End Ave 165—F W Astarita  
 West St 116—Knickerbocker Electric Co  
 West 8th St 58—C S Harris  
 West 14th St 249—Kenehan & Clancy  
 West 17th St 108—Manhattan Elec Cont Co  
 West 17th St 142—Harry A Hanft  
 West 26th St 101—Pruver Electric Co  
 West 30th St 114—Tucker Elec Construction Co  
 West 31st St 109—Jandous Elec Equip Co Inc  
 West 33d St 221—E-J Elec Installation Co  
 West 34th St 20—Harry Alexander Inc  
 West 34th St 110—Nimis & Nimis Inc  
 West 35th St 147-49—N Y Elec Installation Co  
 West 39th St 42—J Fischer Electric Co  
 West 40th St 105—Lord Electric Co  
 West 40th St 337—William W Ritchie  
 West 40th St 447—Manhattan Engineering Co  
 West 40th St 458—George L Ford  
 West 42d St 17—Youmans Elec Co Inc  
 West 42d St 25—William D Munro  
 West 42d St 112—Oberg Blumberg & Bleyer  
 West 42d St 121—Conduit Wiring Co  
 West 42d St 229—M Schweiger & Co Inc  
 West 42d St 314—A & A Electric Co  
 West 45th St 56—Russell & Co  
 West 45th St 100—Robert Bernecker  
 West 48th St 209-13—Strauss & Company Inc  
 West 53d St 207—Wm A Brown  
 West 53d St 243—W E Nichols  
 West 59th St 401—John T Williams Co  
 West 72d St 176—Kaufman & Burkert  
 West 83d St 121—C A Christesen  
 West 99th St 146—John A Marcato Co  
 West 100th St 204—L Koehler  
 West 116th St 138—P Simpson  
 West 116th St 227—Lewis S Davis  
 West 125th St 71-75—H Kaufman  
 West 125th St 74—Lawrence L Strauss  
 West 125th St 215—M J Heller Elect Co  
 West 125th St 247—Planet Elec & Sup Co  
 Wooster St 12—Durbrow & Hearne Mfg Co

### East of Broadway and Fifth Avenue

Beekman St 74—Jordan Bros Const Co  
 Bible House 78—Thos C Miller  
 Beaver St 42—Hanover Elect Co  
 Broome St 114—B H Weinberg  
 Broome St 434—The Globe Electric Contracting & Repairing Company  
 Cedar St 16—Wm Truswell & Son  
 Dover St 8—Hazazer Electric Co Inc  
 East Houston St 93—I Berkowitz  
 East 3d St 48—B Ackerman Co  
 East 3d St 136—H A Schreiber  
 East 5th St 416—Frank Bloom  
 East 7th St 79—Ackerman B  
 East 8th St 4—J M Smith & Son  
 East 8th St 48—American Pressing Iron Co  
 East 13th St 2—B W Sandbach & Co





The Old Marble Works at the Foot of East 30th Street

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*"At Your Service"*



## THE NEW YORK EDISON COMPANY

GENERAL OFFICES: IRVING PLACE @ 15th STREET

TELEPHONE STUYVESANT 5600

### BRANCH OFFICES

424 Broadway  
126 Delancey Street  
10 Irving Place  
124 West 42d St

### TELEPHONE

Canal 8600  
Orchard 1960  
Stuyvesant 5600  
Bryant 5262

### BRANCH OFFICES

151 East 86th Street  
15 East 125th Street  
362 East 149th Street

### TELEPHONE

Lenox 7780  
Harlem 4020  
Melrose 9900

All showrooms open until midnight

*Emergency Night and Sunday Call—Farragut 3000*

### TERRITORY SERVED BY THE VARIOUS SUPPLY OFFICES

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Streets, west of the Bowery and south of Catharine Street

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



## The Edison Monthly

**The Edison Monthly**  
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N F BRADY, President  
JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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The rising cost of private plant service for big buildings is food for thought at any time. Such advances, coming at a period which has witnessed several reductions in the cost of central station service, point with increasing emphasis the fallacy of the private plant idea. To be specific:—a certain plant in New York City cost \$25,000 to operate for the year ending May 1, 1916. It cost nearly \$32,000 for the next year, and this was before prices had reached their present high level.



The figures which show the details in the increased cost of private plant operation, in the case referred to are interesting. They show for instance that coal purchased during 1915 at \$3.00 per ton cost \$3.90 in 1916. Fuel is now ranging between \$5.00 and \$6.00. This item alone represents a round \$4000 for the year. Such trifles as ash removal jumped from \$400 to \$600, supplies from a thousand to nearly twelve hundred dollars, repairs went up \$300.

This is just one of the many instances which illustrate what an expensive proposition the private plant is becoming. It is such cases that illustrate the difference between

the private plant and the Central Station and in a measure it explains why, during the past twelve months, sixty-one such plants in Manhattan have abandoned their activities.



Refrigeration as a factor in food conservation has long held an important place commercially. Under stress of war conditions refrigeration and its proper application become vital factors to the welfare of the country.

Non-perishable food products and those which will stand the rough handling incidental to shipment abroad are best suited for the use of our army in France and for the provisioning of our associates in the war. Perishable stuff is advocated by the Federal Food Administration for consumption at home.

But both in the case of shipments abroad for early consumption and in the holding of perishable goods at home it is important that proper conditions prevail if spoilage is to be prevented. It is here that artificial refrigeration is playing an important war-time part in the food question.



As related elsewhere in THE EDISON MONTHLY, food dealers are depending more and more on this means of preserving their food. The day of the ice cart and the handling of sloppy cakes of frozen water is passing. Instead, motor driven equipment, operating refrigerating and ice making machines, is taking the place of the older method.

The first and most important con-

## The Edison Monthly

sideration is the fact, that the new method is more reliable, providing a dependable service for cold storage rooms. Other factors are merely incidental. In this case, however, the users of motor driven refrigerating equipment enjoy another advantage. Plus dependability of service they enjoy a lower operating cost, for artificial refrigeration is not only more dependable and more cleanly, but it is cheaper.

In the interest of sanitation, economy, and national transportation, it becomes the duty of every handler of perishable foodstuffs, to see to it, now, that his cold storage rooms are properly equipped and in order.



With the completion of sections of the new rapid transit system in different parts of the city and the restoration of thoroughfares long torn up and almost impassable, merchants after many lean months are looking for a return of normal business.

Trade is inclined to be fickle under almost any conditions. It was inevitable that the narrow plank sidewalks and torn up and dirty streets should drive buyers to more inviting shopping districts. As a result many retailers either failed or moved and those who remained had to make the best of a falling off of business. Now, however, things are changing and along with the improvements which have been so costly to them, merchants in these sections are preparing for a return of prosperity.



They realize though that success as measured by prosperity must be won,

so they are preparing to attract lost trade. There is a considerable refurbishing of shops long dusty, a brushing up of fronts and—it should go without saying—a modernizing of lighting equipments.

Greenwich street in particular is cleaning up and making ready to hold trade when it comes back. The example of the far-sighted merchants who know that trade follows the light, can, with profit, be emulated by others in other parts of the city.



For every horse maintained in service in the city it is necessary to provide food and shelter. This means that hay, oats and straw must be brought to him—by freight.

The freight situation is too well known to require comment here. The point is this—that where horses are used they are the direct cause of an increased burden upon the railroads, and so long as they are used, just so long will they continue to add to the freight handling problem.



Fortunately though there is a solution at hand. Many New York merchants are maintaining their delivery systems at the highest standard of efficiency without adding by so much as a pound to the freight congestion.

Installed before the present conditions became acute, electric trucks in the service of these merchants were proving decided factors of economy and reliability. To these they now add the virtue of performing their duties without complicating the railroad situation.



# The Edison Monthly

## The Dynamo

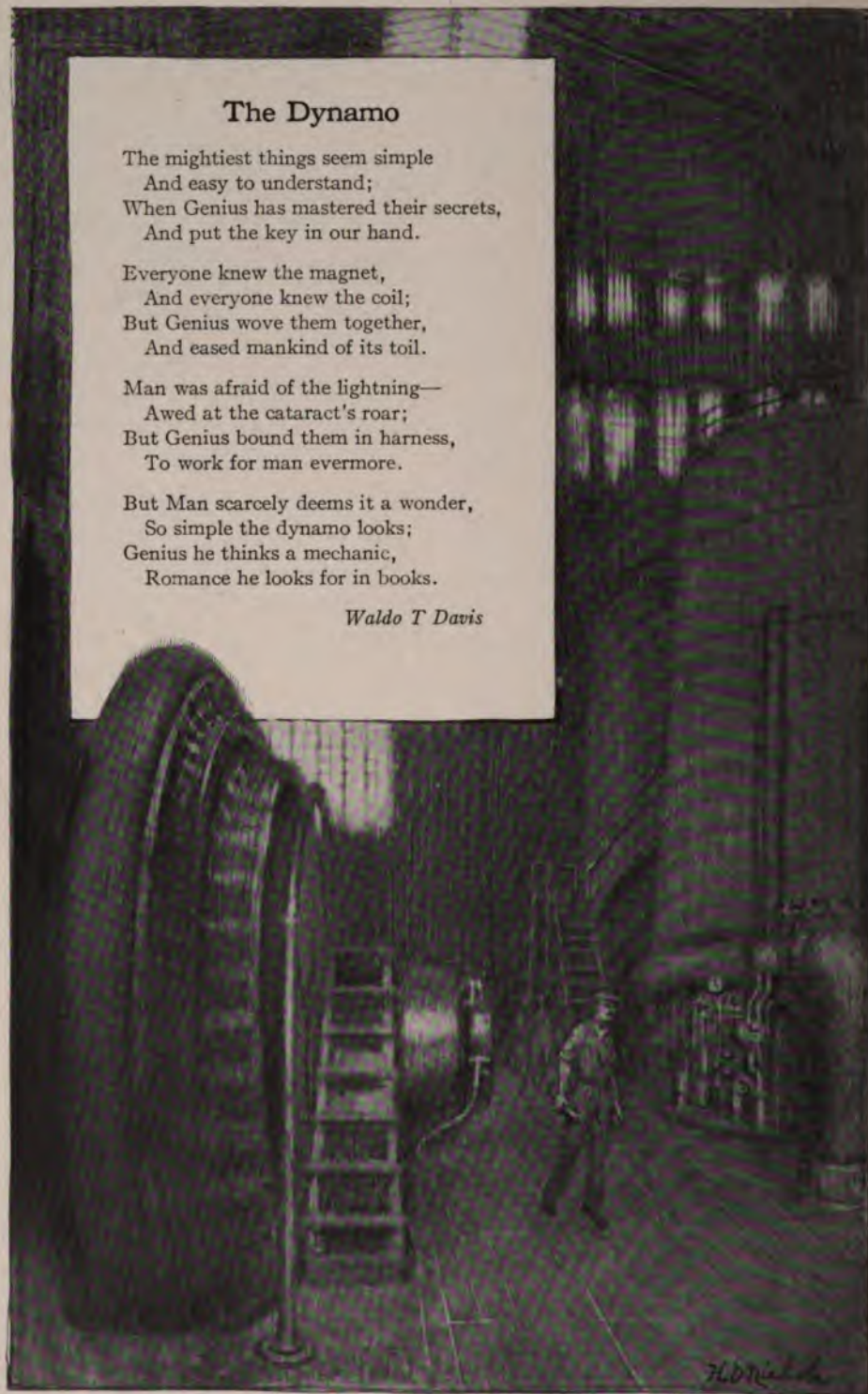
The mightiest things seem simple  
And easy to understand;  
When Genius has mastered their secrets,  
And put the key in our hand.

Everyone knew the magnet,  
And everyone knew the coil;  
But Genius wove them together,  
And eased mankind of its toil.

Man was afraid of the lightning—  
Awed at the cataract's roar;  
But Genius bound them in harness,  
To work for man evermore.

But Man scarcely deems it a wonder,  
So simple the dynamo looks;  
Genius he thinks a mechanic,  
Romance he looks for in books.

*Waldo T Davis*



# Veteran Generators

**D**ESPITE the fact that the discarding of old electrical generating equipment in favor of Central Station service is a thoroughly wise and economical proceeding, a certain feeling of sentiment is nevertheless engendered toward ancient apparatus which is thus relegated to the junk heap. Particularly is such a feeling allowable when generators similar to the "Jumbos" of the first Edison station on Pearl Street are set aside after a long period of faithful service. To such retiring veterans a few words of appreciation should surely be devoted.

In the factory of Jacob Doll and Sons, at 520 Cherry street, a generator of this type was closed down some time ago—a General Electric make, bi-polar, with vertical fields, of 125 volts and 25 kilowatt capacity. It was belt driven by a steam engine. The history of this veteran, as nearly as it can be traced, goes back to the early eighties, when it was installed in a building owned by the Goelet Estate at Fifth avenue and 37th street. It had a twin then, whose subsequent history has been lost sight of. These two, with another pair of generators of a different make, supplied illumination for a number of years to the society functions that took place in Sherry's famous establishment. After Sherry's vacated the building in 1898 and moved to 44th street and Fifth Avenue, the Davis Collamore Company occupied the building for a number of years, the old generators still rendering faith-

ful and entirely satisfactory service.

But sometime about 1908, or perhaps a little later, part of the old equipment was disposed of, to be replaced by new, and the two generators were put up at auction. They were bid in by A Schoonmaker of 50 Church street, and then came their parting, the subject of our sketch being purchased by E Schloss & Sons, furniture manufacturers with a big plant at the foot of Cherry street. At this stage in its career, it entered the exclusive society of the renowned "Vernis Martin" furniture which this firm used to make in large quantities, —delicate and elaborate "Parisian" curio cabinets, tables and stand—all considered choice objects for luxurious homes. Through the last years of Schloss & Sons' activities and during four years of ownership by the Nanes Company, the generator continued to perform its duty of supplying light for furniture manufacture.

The new owners, Jacob Doll & Sons, have discontinued furniture making, and are devoting all the energies of the plant to the manufacture of high class music cabinets, turning them out at the rate of about 1000 a week. Feeling the need of a better and more up-to-date electrical equipment, if the fullest efficiency were to be attained, the company decided to close down the old generating plant and replace it with service from Edison mains. Central Station current is now enabling them to fill their orders with rapidity.

The other old generators which



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have gone into retirement are the three which have been working together for thirty-three years for the New York Quotation Company at 18 Broadway. Not at all because they were worn out by their long association with the strenuous activities of the stock market and by the demands of the hundreds of tickers which they had to operate, but because, as compared with Central Station service they were decidedly expensive to operate, they were finally supplanted.

They were installed in 1883 by the Commercial Telegraph Company, which two years previous had been started in opposition to the Western Union Telegraph Company and which

in the year mentioned enlarged its equipment to meet increased demands in ticker operation. Replacing older dynamos built in J H Longstreet's shop, these new generators were the product of the United States Electric Light Company of Newark, and were designed by Edward Weston, the founder and head of the company. All three are of the bi-polar type, with horizontal fields, and belt driven by a steam engine. Two have usually been in operation at the same time, the other being reserved for emergency.

In 1890 the Commercial Telegraph Company was bought out by the New York Stock Exchange, which at that time was considering a ticker



*Photographic Bureau of The New York Edison Company*

**A Veteran Generator Driven by a Steam Engine, Which for Many Years Helped to Make Furniture in a Factory at the Foot of Cherry Street**



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service for its own members, and which, after looking over the field, selected this plant as being the most efficient for its purpose. Since then the generators have been supplying energy for a constantly increasing service, at the time of their discontinuance operating between 1400 and 1500 tickers all over the city.



*Photo by Courtesy General Vehicle Company*

Manhattan Storage Warehouse Trucks are Equipped with Movable Bodies to Facilitate Loading and Unloading

### A Moving Argument

WHEN one sees a ponderous van go rumbling through the streets, presumably filled with household furniture, one is forcibly impressed with the amount of man and mechanical power involved in the handling and transportation of such goods. Yet this same truck, if it is an electric—has probably, in reality, made the task comparatively simple and easy, solving many of the problems which formerly made handling of household goods uncertain and very exasperating. Those who are most concerned in this work—namely storage warehouse owners—impelled to the use of the electric truck by its obvious advantages in many directions, endorse it with a testimony unanimous and enthusiastic.

A consensus of opinion would seem to be indisputable proof of any matter. Therefore when a large number

of storage warehouse owners with one accord endorse the electric truck as ideal for furniture moving purposes, such a recommendation can scarcely be questioned.

"One hundred and twenty per cent perfect" is the flattering pronouncement of Mr Charles Morris, one of the owners of the Metropolitan Storage Warehouse Company at 39 West 66th street. This company uses four electric trucks, three Lansden, two of two ton and one of one and a half ton capacity, and a three ton General Motor. Small repair bills, always one advantage of operating electric trucks, appear to be among the chief reasons for the Metropolitan's enthusiasm. Attention given systematically by one of the men in the company's employ has been quite sufficient to keep the vehicles in good condition and working order.

The electric trucks have been frequently used by this concern for hauls



## The Edison Monthly

as long as thirty miles, a longer haul than the electric is usually called upon to make in this particular line of work, but one of which it is thoroughly capable none the less.

The ease with which they "get away" is particularly valuable when fragile goods are handled. It has also been found that the former drivers of horse vans can readily and without difficulty learn to operate the electric trucks.

No less than six electric trucks are used by the Manhattan Storage and Warehouse Company, whose huge building is at Seventh avenue and 52nd street. Five of these are General Vehicle make, the sixth and oldest, first used in 1913, being a Studebaker of a model no longer manufactured. Mr John Neser, the vice-president of the company, freely asserts that one of the General Vehicle trucks is more than equal, so far as his company's needs are concerned, to three horse-drawn trucks.

The use of the trucks is facilitated by the employment of movable bodies. By this means a truck body coming in loaded with furniture is rolled off onto a four wheeled carrier, leaving the truck chassis clear for the fastening on of another body which can be immediately sent out again while the first is being unloaded.



*Photographic Bureau of The New York Edison Company*

Three Lansden and Two Baker Electric Trucks Comprise the Fleet of the Columbia Storage Warehouse Company. Each Car, so the President Figures, Costs \$600 Less per Year to Run than a Gasoline Truck of the Same Capacity

"Ideal for city and suburban work" is the verdict of Mr Charles R Saul, president of the Columbia Storage and Warehouse Company. Electric trucks have been used by this firm for seven years and have admittedly proved their superiority over gas cars for the requirements of the city. Even with the heaviest loads, the speed available has been found more than sufficient, since furniture in any case requires a pace moderate enough to do away with possibility of jarring or breakage.

The fact that this firm uses gasoline cars for long country runs offers an excellent opportunity for a comparison of maintenance costs. For one year, so it has been figured by the company's officials, the cost of maintaining an electric in continuous use is about \$600 less than the cost of a gasoline car. One Lansden truck, used continuously since 1910, required battery renewal for the first time this year. Two other Lansden trucks



## The Edison Monthly

with Edison batteries and two Baker trucks equipped with Exide batteries complete this very worth-while fleet.

A run of sixty-one miles on one charge was the record recently made by furniture electric trucks belonging to the Colonial Storage Warehouses at 143 West 90th street. This was a General Vehicle truck, as are the other two employed by the company. Of course this was an unusually long run; twenty miles is the ordinary radius within which the concern operates. But it demonstrated that necessity for recharging is by no means as frequent as those unfamiliar with electric trucks are led to expect.

The first of this fleet of trucks was purchased three years ago, and the satisfactory character of its service led to the eventual displacement of all the horsedrawn vehicles and the substitution of the two additional trucks

now in use as well as another in Jersey City. Even without such enthusiastic testimony the mere fact that nearly all the largest storage warehouses in the city are using electric trucks, would be proof enough of their peculiar adaptability for this kind of work. The Lincoln Safe Deposit Company's fleet of nine is the largest. Then there is the Audubon Storage Warehouse Company with five; the Atlas Storage Warehouse Company; the Globe Storage and Cleaning Company; Liberty Storage and Warehouse Company; and the West End Storage Warehouse.

In constant use, winter and summer, the trucks of these companies negotiate the crowded streets, unhindered by the weather or by heavy loads, running easily and smoothly, providing the ideal moving method for furniture and kindred goods.



*Photographic Bureau of The New York Edison Company*

Some of the Metropolitan Company's "1204 Perfect" Electric Trucks. This Concern Uses Its Fleet for Hauls as Long as Thirty Miles



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An Emergency Installation of Central Station Service Led to the Complete Abandonment of the Generating Units in the Lithographic Plant of William Steiner Sons. The Consumption of Current Here will Average 170,000 Kilowatt Hours Yearly

*Photographic Bureau of The New York Edison Company*

## The Edison Monthly



Central Station Service Has Supplanted the Generators that Long Operated in the Factory of the Nemo Corset Company. Approximately 400 Horsepower in Motors and 3,000 Incandescent Lamps will be Supplied by The New York Edison Company

*Photographic Bureau of The New York Edison Company*



# Edison Service and Food Saving

"I DON'T hesitate to say that our Edison served refrigerating plant is the best thing for our purpose that in systematic food saving is further brought out by the big meat and provision house of P Oppenheimer in

I know of. It is cheaper, it calls for little or no repairs, it is always on the job, and it makes no dirt or dust—a pretty important factor in this business. I'm thoroughly satisfied with it, particularly in view of the present wide spread interest in food conservation." Such is the opinion of Mr

C R MacDonald, President of the

Atlantic Hotel Supply Company. The plant in question is of thirty-five tons capacity and keeps at it twenty-four hours a day. Edison drive supplanted an oil engine. The extent of this firm's operations brings out the absolute need of a refrigerating system that embodies the qualities mentioned by Mr MacDonald. High-class hotels not only here in town but all over the country look to the Atlantic Supply Company for their meats, perishable groceries, canned fruits, and sauces.

The part played by Edison Service

in systematic food saving is further brought out by the big meat and provision house of P Oppenheimer in



*Photographic Bureau of The New York Edison Company*

An Ottman Pickling Room Where a Low and Even Temperature is Maintained

131st Street. Up to within two years the company did its refrigerating with natural ice. By that time the expense of this method as compared with that of the electric driven ammonia system, together with the dirt and annoyance of the old way, brought about a change to the present system.

Among other big downtown provision houses using Edison Service William Ottman and Company is conspicuous for the constant growth of its business. To-day meat shipped

## The Edison Monthly



*Photographic Bureau of The New York Edison Company*  
Inside the Big Hearn Butter Refrigerator

from the big building on Water Street finds its way into all the more important hotels of New York, Boston, and Philadelphia as well as into the refrigerating compartments of the great trans-Atlantic liners.

Eleven enormous refrigerators and a number of smaller ones are in use by this company together with two 35-ton ice-making machines driven by 70 horse power motors. Frozen meat is stored in the top floors of the building where a temperature seven or eight degrees below zero is steadily maintained during all seasons.

This factor of constant operation is of course characteristic of Edison drive. Any type of drive less dependable would be simply out of the question and especially so in the present food stringency when no waste must be permitted. The lowering of the necessary temperature in these storage compartments even for a few hours would mean a serious break in the conduct of the business. This

is why the Ottman Company finds Edison Service the thing for its purpose and a thing to be commended heartily.

The storage of butter and eggs, and of butter especially, has always called for special care. Not only does the temperature have to be constant, but the medium itself must be thoroughly clean and free from odor. Among many local instances where Edison Service is used for this purpose that of F W Hearn and Brother is typical. This well known Fulton street concern has supplied a large territory for years and is in a position to speak to peculiar advantage of Central Station service. Mr F W Hearn writes,

"Replying to your inquiry regarding our experience with electrical refrigeration we wish to say that we installed our plant about four years ago and that it has been a wonderful success. It is economical, sanitary, clean, and of course of much lower temperature than ice.

"We cannot make the recommendation too strong and would be glad to



*Photographic Bureau of The New York Edison Company*  
Where Swiss Cheeses are Kept in the C Percival Establishment



## The Edison Monthly

give further information to anyone interested."

This is the estimate placed upon Edison refrigerating service by the dozens of big wholesale provision houses in all parts of the city that are using it. The cases cited were selected to give some idea of the variety of the requirements of the business. The fact that street

current is meeting these requirements in every case is borne out by its increasing use and its recommendation on the part of its users. The satisfaction it is giving



*Photographic Bureau of The New York Edison Company*

One of the Many Compartments of the Great Ottman Installation

under such exacting conditions should impress industrial and real estate interests who may be skeptical regarding its fitness for every modern demand.

### Incandescent Eggs

The Farmer in the Dell had no more eggs to sell,  
He was losing all his prestige with the H C of L  
The Farmer heaved a sigh, "With orders piling high,  
If I had lots of eggs, I'd be a Croesus by and by."

"But hens and roosters, too, are such a lazy crew,  
They will not scratch a single scratch until the day is due.  
"Oh, I've a scheme," said he, "I'll try duplicity,  
Some kilowatts and wires and things will end this scarcity."

Now, long before it's bright, he switches on the light,  
The chickens think the sun is up and scratch with all their might  
The scheme, it works so well, the Farmer in the Dell,  
Has 'most a million dollars now and heaps of eggs to sell.

*Hale McBride*

# Modern War Signals

THOSE civilizing agencies of to-day, the telegraph, the telephone, and the wireless, were not developed primarily to facilitate the exchange of amenities between members of the human group, or to fix time and place of social meeting after business hours.

Quite otherwise! They came in response to modern requirements of war and commerce that the ancients knew not of. What would it have profited a Tyrian merchant to know

that oil was that day quoted at an extraordinarily low figure in "the emporium of the East" when it would take his slow-going wooden ships weeks to negotiate the passage—if any of them finally arrived? By the same token the electrical paraphernalia of a modern signal corps would have been as much out of place in the slow moving army of a Carthaginian or Roman general as a ticker in a Pompeian public house.

However, in the reign of Charles II some long headed Briton advised the injection of "pep" into H M navy by the adoption of a system of signalling in which variously colored flags were used to convey definite messages. Thus apparently was ushered in the modern era of code signalling and signalling by flags, semaphore and heliograph. Then came the telegraph, the Morse code and the beginning of a revolution in methods of military and naval signalling.

The Prussians were, according to report, the first to employ the telegraph for military purposes, first in their war which, with the aid of Austria, they waged against Denmark, then for the communication of orders and the direction of movements of troops in the war of 1868 against Austria. By 1870 the importance of



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The Signal Bridge of a Modern Fighting Ship, Showing the Flags and the Semaphore



## The Edison Monthly

telegraphic equipment as an aid to military operations was generally recognized, and in the Franco-Prussian war it was extensively employed.

From the beginning of the present war the reports have contained thrilling descriptions of positions successfully defended or gallantly won by the aid of the indispensable wire or radio

outfit. Not only must all the large and small units of an advancing army be kept in telegraphic communication with one another and with the army headquarters, but the establishment of lines of telegraphic and telephonic communication at the very front after each successful advance is essential to the maintenance of the position and the integrity of the line.

Modern trench warfare has greatly increased the difficulty of promptly communicating orders by signalling and dispatch carrying, and correspondingly increased the importance of electrical methods of signalling. As a result greater responsibilities have been thrust upon the signal corps and special telegraph battalions, and electrical devices for the accurate and prompt transmission of intelligence have multiplied.

One of these designed to overcome the difficulties of field communication incident to hurriedly laid and poorly insulated wire, is a combination field telegraph and telephone. As developed by the United States Signal



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Italian Signalmen with their Flasher Apparatus

service it consists essentially of a small dry battery, induction coil and interrupter, telephone receiver and transmitter, enclosed in a leather case, which may be slung from the shoulder by a strap, the entire outfit weighing but five pounds. When the instrument is used as a "buzzer" an alternating current is produced by the interrupter, the intermittent sounds produced at the receiving end, which are very intense in character, even in the midst of much confusion, being interpreted by the Morse signal code. By mere pressure of a button upon the transmitter the instrument may be converted into a field telephone.

The latter, the field telephone, is one of the late comers among instruments for communication in time of war, yet for comparatively short distances and where lines can be kept open it has displaced other apparatus, especially for directing gun-fire and transmitting orders to intrenched commands.

Each of the four war machines, the airplane, dirigible, submarine and



## The Edison Monthly

motor vehicle (whether for carrying or offensive purposes), which had in no previous war passed the early experimental stage, has been provided during the present war, with signalling equipment, the type depending upon the necessities of the case, weight of apparatus, space for installation and of course many other factors. Automobile wireless signalling apparatus has naturally proved of great service because of the swiftness with which it can be transported for long distances. At the beginning of the war, at least, the French possessed the most powerful of these movable stations. The vehicle, carrying a crew of thirteen operators, "can travel," it is said, "250 miles without reprovisioning, and can then send wireless messages continuously for five hours." The mast is carried in

segments upon the roof of the car and assembled on the ground when the halt is made. About two years ago, several cars, equipped with radio telegraphic apparatus, including an 80-foot jointed mast and antennæ comprising sixteen 100-foot wires, was constructed for our army by the United States Signal Corps. The current for these cars is supplied from an alternating current generator of two kilowatts capacity, and the radius of communication is about 200 miles.

Under the stimulus afforded by war the difficulties of wireless communication are rapidly being overcome, and occasionally above the surface of the seas haunted by belligerent navies may be seen the telescopic mast of a submarine which has risked detection and has come to the surface for brief communication.



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An Austrian Radio Station in the Alps. Energy is Provided by the Hand-Turned Generator Shown in the Foreground







*The Coal Peddler, a Common Sight on the East Side*

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*"At Your Service"*



## THE NEW YORK EDISON COMPANY

GENERAL OFFICES: IRVING PLACE @ 15th STREET

TELEPHONE STUYVESANT 5600

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126 Delancey Street	Orchard 1960	15 East 125th Street	Harlem 4020
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*Emergency Night and Sunday Call—Farragut 3000*

### TERRITORY SERVED BY THE VARIOUS SUPPLY OFFICES

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Streets, west of the Bowery and south of Catharine Street

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



## The Edison Monthly

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LEWIS B GAWTRY, Secretary

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Although there is nothing new in the use of electricity for melting ice, it must be admitted that it is something unusual when the launching of a ship depends upon this process.

Electricity has been employed times without number for thawing frozen water pipes, the principle of the method being quite simple. Conductors leading from the electrical supply system are connected at each end of the frozen pipe. Current is then turned on, the resistance of the pipe to the passage of the current causing the heat. After a period varying from a few minutes to several hours, depending on the extent of the freeze-up, the ice melts and water flows. A noteworthy example of such thawing occurred in the winter of 1912 when the water main connecting North Brother Island with the Bronx shore was frozen for almost its entire length.

As has been said, such work is now quite common. In fact, during the recent record breaking cold snap more than 300 jobs of this kind were handled by The New York Edison Co.

An unusual application of this principle occurred in January when electric heat was utilized to release a ship which had frozen to her launching-ways. The rollers of the cradle had become imbedded in a mass of ice

which covered the iron tracks of the marine railway. As described elsewhere in this issue, the ship-builders had tried in vain to melt the ice with steam jets. Failing in this, they finally called upon the representatives of the Central Station for help. The required connections were made, the current was turned on and the following morning the vessel was released from the grip of the ice and the launching was effected.



The part that trucks are taking in relieving freight terminal congestion in Greater New York, and the part that trucks are playing in meeting conditions brought on by the war will be two of the important subjects discussed at the Truck Owners Conference to be held on March 8th and 9th at the Hotel Astor.



"Electric lighting of a general nature is the thing which, next to nourishment, contributes the most to maintain the morale of the men," says Captain Gustave P. Capart, of the General Staff of General Petain, in an article in the Electrical World. Captain Capart is in this country as a member of the French Scientific Commission.

Of the use of electricity in the War, he says further: "The object of the electric organization of the army is to distribute light and motive power as near as possible to the firing line by applying the established methods of the industry. Electric lighting of a general nature is the thing which next to nourishment contributes the most to maintain the morale of the men."



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Moreover, the use of electrical energy in the territory occupied by the armies, increases the product of manual labor in multiple forms, a consideration not negligible in a war of attrition such as that we are waging."

Behind this brief statement it is not difficult to picture a dug-out lighted to a degree of cheerfulness by one or more incandescent lamps. Sergeant Empey has told, with characteristic vividness, of gatherings under the light of candles. The extravagant use of several candles contributed by different men of the squad was only tolerated because of the Christmas festivities they lighted. But the candles, dim as they were, did their bit to impart the Christmas spirit in the war-worn men. How much greater cheer the bright incandescents would have spread is something which can be only conjectured.



While it is true that the gasoline auto truck, as employed in the mechanical transport, ranks high with the military factors that are helping to win the war, the fact must not be overlooked that the less spectacular brother of the gasoline truck—the electric—is playing a no less important part in its place behind the battle lines.

The gasoline truck is the vehicle of the fighting armies. The electric truck is the vehicle of that no less important "army behind the army." And as the war continues and the need for gasoline trucks becomes greater on the other side, the electric will be called upon increasingly to handle home transportation.

This is not idle speculation. The situation in England is proof enough.

In the summer of 1914 there were perhaps 150 electrics in all England. Today the number is far in excess of a thousand. The first hundred and fifty represented the development over a ten year period. The others have been added during a period of slightly more than three years.

The English situation is being paralleled now in our own country. American mercantile and industrial concerns are turning to this mode of transportation in constantly increasing numbers. The past six months has witnessed the installation of storage battery vehicles by many concerns which heretofore had known the electric only in a vague and indefinite way. In fact, so pressing has the demand become that truck factories are reaching their production limits and restrictions as to delivery dates now prevail.



A gratifying indication of the seriousness with which America is facing her war task is seen in the manner in which the "less" restrictions are followed out. Almost invariably the spirit as well as the letter of the law is being observed.

The restaurants are having no trouble in their observance of wheatless and meatless days. And during the period of sugar shortage brown sugar as a coffee sweetener was accepted in the spirit of the times.

And the lightless nights on our thoroughfares have spread their influence to office buildings and factories, where halls and corridors, voluntarily dimmed, bring home with startling emphasis, the urgent need of fuel economy.



## The Edison Monthly

### A Mazda on a Country Road

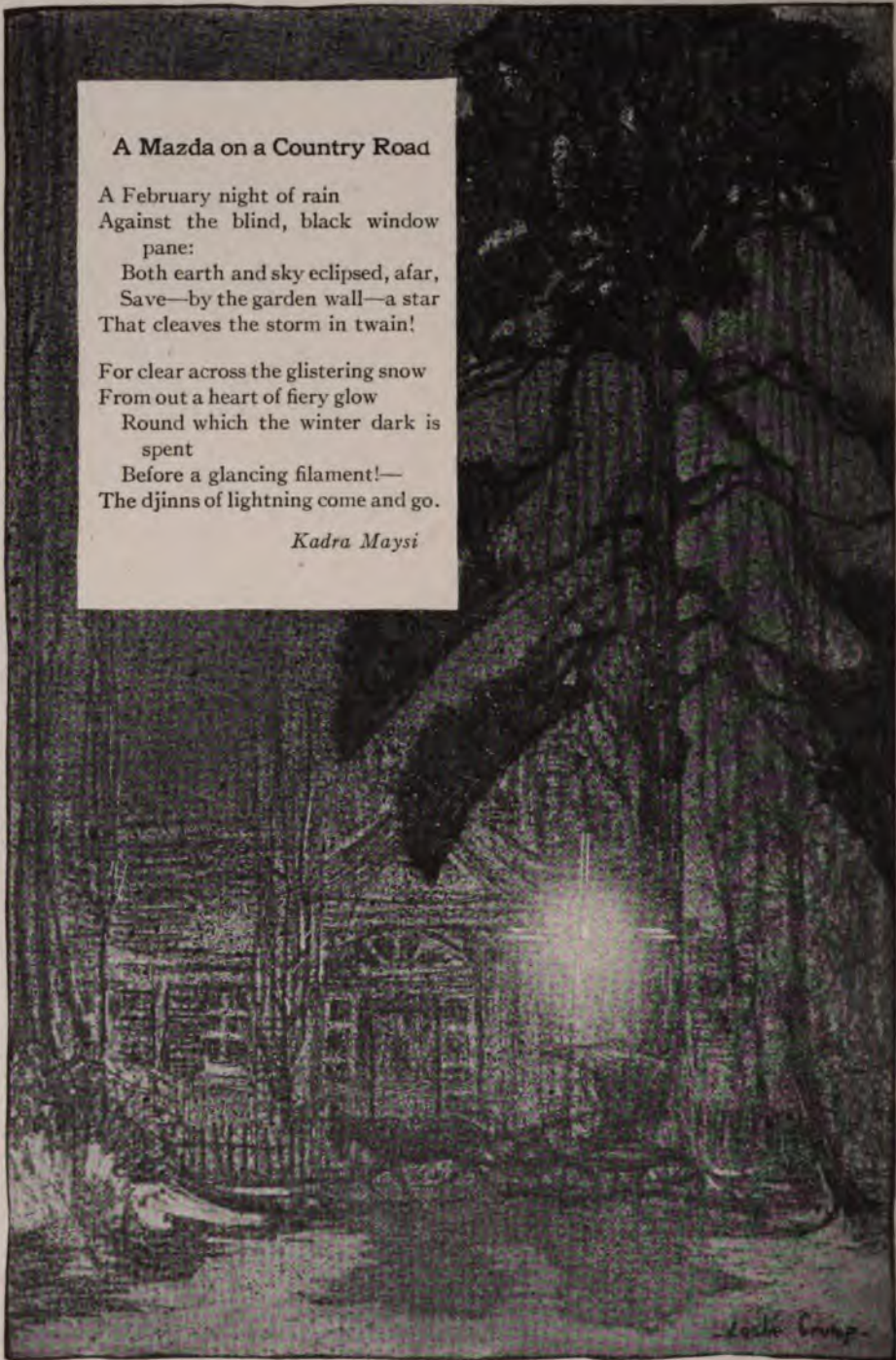
A February night of rain  
Against the blind, black window  
pane:

Both earth and sky eclipsed, afar,  
Save—by the garden wall—a star  
That cleaves the storm in twain!

For clear across the glistening snow  
From out a heart of fiery glow  
Round which the winter dark is  
spent

Before a glancing filament!—  
The djinns of lightning come and go.

*Kadra Maysi*



*Decoration by Leslie Crump*

# Telephone Preparedness

FIFTY-THOUSAND Bell Men  
Signal Corps, if War Starts.  
Every Man an Expert in Tele-  
graph Work," read the headlines of  
the newspaper a year ago. "Tele-  
phone Company and Western Union  
Signal Corps." Then came the  
announcement: "Signal Companies  
—The men expect early or-  
ders to cross the Atlantic,—they will  
perform important work of establishing  
communication from the  
front lines to General Pershing's  
headquarters and also between com-

Finally came the "Orders  
for Signal Officers' Reserve Corps—  
of telegraphers—the men  
assigned to the various divi-  
sions of the new National Army to  
form telegraph battalions."

To say, in the portentous  
language which these headlines called  
for attention there did not once  
appear familiar expressions, "lack  
of preparedness," "much time re-  
quired to render fit for service—,"  
"inadequate equipment," and the  
question, "Prepared for War? Of course  
the army was prepared for war—elec-  
trically, telegraphically, telephon-  
ically, at least, which is to say, pre-  
pared by the ways that coming events  
were to be of the utmost impor-

"The Signal Corps," says a gov-  
ernment authorized *Study Course for  
Soldiers*, "is the message-  
center of the Army. It carries in-  
formation from one headquarters to  
another. It is today as essential to  
the conduct of a great army as the

telephone is to the conduct of a great  
business." Therein lies a comparison  
that is big with meaning, for Amer-  
ican business ways are not as the ways  
of the European.

The Signal Corps, far from being  
as it was in the days before the de-  
velopment of electrical communica-  
tion, a mere accessory to the business  
of war, has become a branch of the  
service second in importance to none.  
The flag, the semaphore, and even  
the heliograph, have now a restricted  
use, being all but supplanted by the  
wire, the wireless, and the wired wire-  
less.

The telegraph and telephone direct  
the battle. They connect the first  
line trenches with those in the rear  
and with the various observation  
posts. From these and from the sup-  
porting trenches an intricate system  
of electrical communication connects  
the smaller units with the headquar-  
ters of corps and army. Without  
this system, which insures rapid com-  
munication and the prompt trans-  
mission of orders, a modern army  
would be little better than an un-  
organized horde, and it is not too  
much to say that warfare as carried  
on today would be impossible.

## *America's Preparation for War*

The history of America's prepara-  
tion for war is contained in the record  
of American invention and industrial  
achievement, free competition and in-  
dustrial initiative, a most important  
chapter of which concerns the develop-  
ment of her telegraph and telephone



## The Edison Monthly

systems. On the other hand, if antebellum comparisons afford indication, great must have been the unpreparedness of Europe for the present struggle, and many the difficulties encountered in the effort to adapt antiquated apparatus and obsolete methods of telegraphy and telephony to the urgent and strenuous business of war.

Prior to the war, methods and machinery which were in use even in the larger centers of Europe had been abandoned many years before in America, and it is stated that hardly an efficient long-distance telephone service could be found in any transatlantic country. "When you hand in an ordinary telegraph message in virtually any government office on the

whole continent of Europe," said one commentator in 1913, "your message may go through in 48 hours; it may by accident go through in 36 hours; it may by a miracle go through in 24 hours; but if you want it to go through in a few hours you have to pay double and even triple rates."

Even in France, where, as in other European countries, the telegraph and telephone are controlled and operated by the government, the "sad commentary on the French service"

is recorded, that Aviator Gilbert flew 100 miles from Paris to the now desolated Rheims in 55 minutes, and that he arrived at his destination before news of his departure could be telephoned.

In democratic America the telegraph and telephone have experienced their highest development, and the



*Illustrations by Courtesy The Telephone Review*

**A Telephone Post in the French Front Line Trenches. This Post is 75 Feet Under Ground**

service has been admittedly the best. In Chicago alone there are more telephones than in all France, more, it is stated, in a single office building in New York City than in the whole of Greece. In America there are fifteen telephones for every one-thousand inhabitants, while in Europe there is but one. Essentially the same may be said of the telegraph. The length of its wire in the United States exceeds that in the whole of Europe, and while for short distances the rates on the

## The Edison Monthly



*Illustrations by Courtesy The Telephone Review*

**American Telephone Men Stringing a Line  
in France**

latter continent are lower, for longer distances they are much in excess, the time of transmission is longer, and the number of operators' errors much greater, everything being considered.

Undoubtedly at the front the lately developed technique of war telegraphy and telephony must be learned by American operators from their more experienced brothers-in-arms, but it is not to be supposed that when the supreme test comes and American efficiency is pitted against European, the tradi-

tions of his profession and the form of training which has developed the American expert operator will be found wanting.

The spirit which has guided the two enterprises, telegraphy and telephony, whose fortunes the operator has learned to identify with his own, is well expressed in the words of Mr William M Swain, one of the early proprietors of The Public Ledger, who was elected but a few years after the successful experiments of Morse to the Presidency of the Magnetic Telegraph Company. He was the first to understand the need of properly ascertaining the operators' qualifications for capacity, integrity and industry, and the first to emphasize the requirement that messages be clearly written without abbreviations. In an address to the operators of his company, delivered in October, 1850, he said: "The only correct principle of competition in business, and which I consider to be the only safe one for any



*Illustrations by Courtesy The Telephone Review*

**Motor Truck Equipped with Telephone and Telegraph Instruments. In Service  
on Somme Front**



## The Edison Monthly



*Illustrations by Courtesy The Telephone Review*

**Mud Covered "Tommies" in a Shell Crater Telephoning the Results of Artillery Fire to the Batteries in the Rear**

person to rely upon in any business, is to serve customers better than a competitor can serve his. It appears to me that any person is safe in business if he unite a consciousness of ability to do this with a determination to the same end. If the Magnetic Company can acquire the reputation of being the model line of the country, it will secure the greater proportion of business, and those employed upon it will be sought for by other companies. Now, to acquire this desirable reputation, the line, in all its management, must be not only in reality pure, but, like Caesar's wife, above suspicion."

Could these words be put into the mouth of a German government-paid official? Nurtured in such a creed,

which unites in a trinity of ends Public Service, the Prosperity of the Company, and last but not least the Welfare and Technical Progress of the Employee, the American expert and operator on European fields must prove at least a different being from his Old World competitor, for he has inherited a belief, which his government-bred antagonist has not, of the mysterious linkage of Duty, Competition and Survival.

---

Said little Miss Lamp  
With a sputter and stamp,  
"I hate being lighted, it blackens me so."  
Said Miss Incandescent,  
"I think it's quite pleasant  
To girdle the earth with a magical glow."

*Hale McBride*

# Remington Headquarters

THE demands of efficiency in spacing and general arrangement have developed an office-building type from which one comes to expect few departures. In fact, the modern steel office structure may be said practically to have reached the climax of its progress, as far, certainly, as Manhattan requirements can affect it. Occasionally, however, novel features, electrical and otherwise, introduce themselves. A most

interesting assortment of such occurs in the lately completed building of the Remington Typewriter Company at 374 Broadway.

The new structure employs current in a wide variety of ways. Unlike the proverbial shoe maker's children, the office force, stenographers and others, have the most modern improvements at their disposal. In the typing department itself electricity not only provides a finely planned illumination

but operates an ingenious announcing device connecting the room with the executive offices. An electric photostat near at hand reproduces lengthy records at a tremendous rate, and in a third department current-driven tabulating and sorting machines handle the voluminous records of the several Remington offices throughout the country. A rapid addressing machine also plays an important part in this Edison-served clerical work. Non-electric, but



*Photographic Bureau of The New York Edison Company*

Edison Service Supplies this Remington Headquarters with a Highly Varied Office and Experiment Equipment



## The Edison Monthly

a feature contributing no little to the efficiency of the typing rooms, is the use of felt not only under every machine but across the whole extent of the ceiling. The result is such a lessening of the ordinary typewriter noise that one can hardly imagine himself in a room with fifty or more of these machines. The same plan has been followed in a room given over to the trying-out of applicants for the Remington service department which is maintained for the convenience of Remington owners.

A second valuable service is encountered in a well equipped repair department where machines that have met with reverses of one sort or another retire for treatment. Electricity is of advantage here for the working of drills, buffers and lathes and, by way of a final touch, for the operation of specially designed vacuum cleaners. A carpenter shop, for building up-keep, is found to make use of

the customary motor-driven saws and planing apparatus.

Of all the mechanical equipment, however, none equals in extent that of a big experiment laboratory on the top floor. To call it anything else than a laboratory would not occur to one familiar with the immaculate and up-to-the-minute experimental rooms of any technical institute. While the apparatus connecting with several motor-driven shafts is as numerous as that of a factory machine shop, each piece is set in a shallow metal pan where any grease that may accumulate is caught rather than on the floor. This flooring, in fact, is of the whiteness of a reception room, due to the more or less constant use of electric cleaners.

Interest in so essential a mechanism as the typewriter gives rise naturally to any number of would-be patents and improvements. Though numbers of these are discovered to be



*Photographic Bureau of The New York Edison Company*

**The Motor-Driven Model Shop, One of the Cleanest Machine Rooms in the City**



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

Semi-Indirect Units Provide Ideal Lighting for the Big Office Floors

European points and Russia in particular, reflects the present disturbed conditions in those markets. Until the outbreak of the war Europe had been absorbing Remington's in steadily growing quantities. Among the customary house pumps appears a sprinkler motor of uncommon size that serves an uncommonly thorough protective system.

impracticable, considerable numbers do succeed in passing the scrutiny of the patent and sales departments after which they are delivered for further testing and development to the laboratory spoken of. The work here is conducted by a corps of the ablest machinists obtainable and is carried on by means of lathes, planers, band saws, shapers and tool, surface, and cutter grinders; milling machines, hack saws, and drill presses, while the vacuum cleaners mentioned, supplemented by electric fans, keep the place scrupulously clean and fresh. Fans indeed are in great demand in all parts of the building which is provided with no less than ninety-nine outlets for this purpose.

The rest of the power used in the Remington equipment is seen on descending to the basement. Here, in addition to freight and two high speed passenger elevators, are two sidewalk lifts for the hoisting of boxed machines to the street level. A large accumulation of packed goods, destined for

### The Silent Auctioneer

AT the regular trade auctions held in the Netherlands, instead of having an auctioneer call for bids, there is a large dial provided with an index hand. The face of the dial is marked with prices, increasing in clockwise fashion. The hand is set at a price above that which the goods offered will probably bring, then is slowly moved to lower and lower figures until some trader indicates his willingness to buy.

Electric push buttons are connected with the dial, which the traders press when a price satisfactory to them is shown by the machine. As the trader presses his button his number appears on the face of the dial and the lot of goods is sold to him at the price indicated by the index hand. There is no noise or confusion, and the auctions are finished in a remarkably short space of time. Of course the possibility of any mistakes being made is absolutely done away with.



# On Reliable "Grounds"

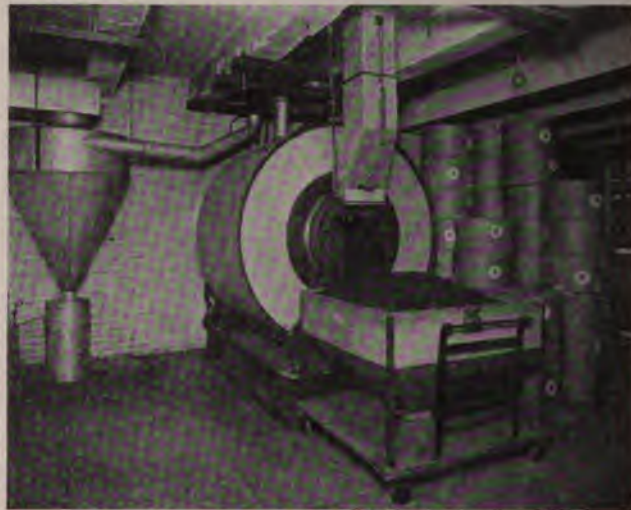
THE public is coming rapidly to agree with Sydney Smith who remarked a hundred or so years ago that he was "glad he was not born before tea." As far at least as the Tetley article is concerned, the demand has grown to such an extent that old-time ways of blending and packing have had to be improved upon. The question, in fact, brewed but a short time when hand work was abandoned in favor of machines, motor power for which was secured from the Central Station.

Big wooden cases bring the bulk tea from Ceylon and the gardens of South India to the Tetley lofts on Greenwich street near Canal. For some weeks prior to the trip the leaves are withered on shelves in the open air, rolled tightly under machine pressure, and finally, in the case of the black variety, singed before the flame of a furnace. Green tea ends its preparation in a steam bath.

Black and green, however, are but general terms. The species that group themselves under these heads are almost countless. It is the expert blending of these species that determines real tea quality; and the expert in this instance, Mr A L Sanders,

holds forth in a laboratory where life becomes just one cup after another.

When a blend has finally been decided on—and ticklish work it is—the cases are dumped into a sheet iron revolving drum of 1000 pounds capac-



*Photographic Bureau of The New York Edison Company*

The Blending of the Teas is Done in this Electrically Revolved Cylinder

ity. A two horse-power motor is switched on, and the great cylinder is soon turning away with its load of leaves. Within five minutes the leaves are mixed as thoroughly as they used to be at the end of two hours of the old fashioned stirring. A motor-driven exhaust fan carries off all dust and foreign matter.

Metal chutes in the floor near-by drop the mixed tea into containers that hang over packing machines in the lofts below. These machines work with a speed and accuracy and attention to business that are unusual

## The Edison Monthly

even in this day of efficient devices.

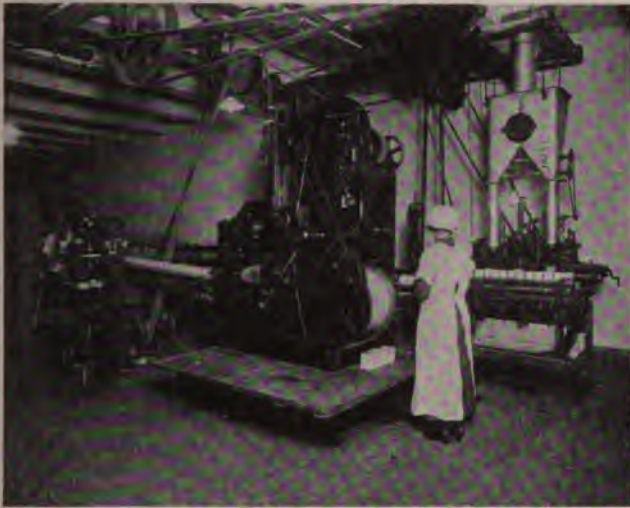
The first weighs the tea by electric scale into pound, half-pound, quarter-pound, or two-ounce quantities. A row of tubes brings down the weighed tea for packing. While this packing is mechanical in the case of other apparatus the work here is done by hand. That is to say, the tube levers are released by a corresponding row

Two newer machines which work at the rate of 1500 packages an hour embody all of these mechanical features, and in addition fill the containers without outside aid. A much greater demand is made upon the electric scales which have to operate at lightning speed. However, the work is done accurately, and the weighed tea is run down into pasteboard containers in exact amounts.

A two horse-power motor supplies enough energy to run each of these machines, the efficiency of which is said to be over fifty per cent greater than that of the old hand method. It goes without saying that the uniformity made possible by machine method could not have been approached under any conditions by hand packing.

Both speed and uniformity are ad-

mitted to be directly due to the use of Edison Service. "The fact is," states Mr Sanders, "we couldn't get along without it. We formerly used steam power, but found that the supply of energy was irregular and interfered with the efficient working of the machines. The quality of heat from this source was also unsatisfactory. We are handling today a volume of business that was hardly anticipated five years ago, and I don't hesitate to say that Edison current is doing a tremendous lot to help us meet the demand."



*Photographic Bureau of The New York Edison Company*

One of the New Packing Machines where the Tea is Weighed and Sealed

of girls who see that the tea is deposited in tin containers and that these in turn are set on a track that carries them along to be tamped down and sealed by the machine.

An outstanding feature of interest is an electric heater backed up by a motor-driven blower which drives hot air against the newly sealed containers, drying them very rapidly so that they can be packed in shipping cases almost immediately. Electric heat also supplies the hot water bath for the labels which otherwise would wrinkle badly in contracting.



# "Swapping Safe"

**T**HOUGH, as a general rule, the old admonition, "never swap horses when crossing a stream," is a safe guide, there are times when a "swap" offers the only solution of a serious situation. Especially is this true when "swapping horses" is interpreted literally. Now it is universally admitted that in the solving of transportation problems the horse leaves much to be desired.

So when the Liggett, Riker, Hegeman Company decided to eliminate their horses at a time when their drug business was at flood-tide, as it were, it cannot be charged against them that they were foolhardy in not adhering to the warning sounded in the old

adage. This company, operating the largest chain of drug stores in America, was crossing a stream—a stream of business that was overflowing its banks. As they attempted to ford this stream, the officials saw that the seven horses and trucks employed for transportation service were certain to founder before the middle was reached. It was then—early last May—that they stopped to "swap" their horse-drawn vehicles for three five-ton electric trucks.

From the time the organization was established, horses and trucks have been used to haul merchandise from the piers and railroad yards to the company's warehouse at 340 West



*Photographic Bureau of The New York Edison Company*

**The Three Five-Ton Electrics which are Supplanting the Horses and Trucks Formerly Employed by the Liggett Company**

## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**Chassis Slipping Out from under a Loaded Demountable Body. The Body Remains Suspended During the Unloading**

4th street. In this way, over a million dollars a month in merchandise was handled.

The electric trucks—only three in number—are now handling all this work and doing it more economically and with far less waste of time. Demountable bodies which are used on the trucks, prove a valuable asset in the saving of time. Each of the vehicles is provided with two of these interchangeable bodies. Thus, while one is unloading in the warehouse the other, mounted on the chassis, is being loaded at the pier or freight yard. At the warehouse this body is removed by overhead hoists and left suspended in the air during the process of unloading. With this contrivance one man can remove a loaded body and replace it with an empty one in three minutes' time.

At present the Liggett Company

employs fuel-driven cars for delivering stock to their local stores, of which there are sixty in New York City. One hundred and twenty others are scattered over the country from Maine to Minnesota and south to New Orleans. But Mr A B Hoppe, the assistant treasurer, believes the electric a superior vehicle. He bases his opinion on the records of

the machines his concern operates and others he has observed. In coming to this conclusion, he takes into consideration the two capital Cs—Cheapness and Cleanliness. With the price of fuel continually soaring and the many intricate parts of the fuel-driven car which require constant attention, Mr Hoppe in comparing costs, finds the reason for his preference for the electric. Their cleanliness and simplicity impress him greatly. Indeed, he and his associates, are seriously considering them for all local deliveries.

The contrast in what Mr Hoppe expects from the electrics during the present winter and what he got from the horse-drawn trucks in the past is decidedly marked. Already he has had an opportunity to observe their mettle. In the unusually heavy snowstorm that overtook the city in



## The Edison Monthly

the second week of December, the electric trucks held closely to their regular schedule. And now the Liggett Company anticipates a winter far different from those of previous years, when it was impossible to know from day to day what difficulties would arise to cripple the transportation facilities. That the work cut out for these electrics is obviously severe, is evident because the present freight situation makes it absolutely necessary for every train arriving in the yards to be relieved of its consignment without delay. However, Mr Hoppe is optimistic, expecting the three electrics to remove the Liggett Company consignments from the congested terminals promptly upon their arrival.

### Electricity Releases Ice-Bound Vessel

**A**FTER a delay of several days, due to the fact that she was frozen fast to the marine railway a Government vessel was launched at a large shipyard recently, after electricity had been applied to melt the ice.

The method employed was very similar to that used by electric light and power companies to thaw out frozen water mains. But while the principle of thawing frozen water mains and pipes by the application of electric current has prevailed for a number of years, the use of the method for releasing an ice-bound ship is decidedly new.

A steel vessel, 150 feet in length, was recently moved into the yard to be repaired. She was floated into a cradle and hauled out of the water on

a marine railway, steel tracks guiding the rollers of the cradle. The repairs were completed and the vessel was ready to be launched. But during the cold spell early in January the tracks became coated with ice freezing fast to the rollers and holding the ship in an unbreakable grip.

Jets of live steam were tried, but the ice formed again as soon as the steam was taken away to be applied to another portion of the rails. After much time and effort had been wasted, the engine broke down, and the task was given up.

Then the local office of the electric light and power company was appealed to and a squad of men was sent to the yard. Cables were connected with each end of the steel rails and electric current, taken from the Central Station mains, was turned on. The resistance offered by the steel to the passage of the electricity heated the rails, and eventually melted the ice. The current was run through the rails from late afternoon until the following morning, 1,000 amperes being used, before all the ice was melted. The launching was then accomplished without difficulty.

### *Frozen Water Mains in New York*

During the same cold spell The New York Edison Company was called upon to handle something more than three hundred cases of frozen water mains. This feature of the service of the Central Station has attained great importance in recent years and it is coming to be looked upon as the logical way to secure relief from this particular form of winter inconvenience.

## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

The Knickerbocker Building Has Abandoned a Plant of 600 Kilowatts Capacity, in Order to Enjoy the Superior Service of the Central Station. This Plant also Supplied Three Other Buildings in the Neighborhood



R





The Inn at Jackson and Cherry Streets Dates Back to 1798

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"At Your Service"



## THE NEW YORK EDISON COMPANY

GENERAL OFFICES: IRVING PLACE @ 15th STREET

TELEPHONE STUYVESANT 5600

BRANCH OFFICES	TELEPHONE	BRANCH OFFICES	TELEPHONE
424 Broadway	Canal 8600	151 East 86th Street	Lenox 7780
126 Delancey Street	Orchard 1960	15 East 125th Street	Harlem 4020
10 Irving Place	Stuyvesant 5600	362 East 149th Street	Melrose 9900
124 West 42d St	Bryant 5262		

All showrooms open until midnight

*Emergency Night and Sunday Call—Farragut 3000*

### TERRITORY SERVED BY THE VARIOUS SUPPLY OFFICES

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Streets, west of the Bowery and south of Catharine Street

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



## The Edison Monthly

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N F BRADY, President  
JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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The real result of the nation's effort at food saving is seen in the size of the national garbage pail, and more particularly in the difference in size between the pail of 1917 and that of 1916. Just as the full dinner-pail measures the prosperity of the country, the empty garbage pail measures its thrift.

And the pail of 1917 has a great deal more room in it than had the pail of the year before.

In New York, for instance, the Boroughs of Manhattan, Bronx and Brooklyn for the last three months of 1916 had a garbage pile containing 101,993 loads of refuse. It was with the realization that this refuse heap contained many scraps of food which could have been saved and utilized—in other words, that American families were throwing good food away with the useless—that the United States Food Administration undertook its campaign to reduce the National waste.



How well the campaign succeeded is seen in the size of the refuse pile for the last three months of 1917. It will be recalled that the campaign of education got under way early in the Fall and that at the end of October the pledge cards were circulated. For October, 1916, there were 38,482 loads of garbage in

the three boroughs; in 1917 there were only 36,889 loads. In November there were 33,733 loads in 1916, and in 1917, 30,516 loads. In December, 1916, the garbage wagons collected 29,778 loads; and last year only 24,668. The difference for the three months is 9919 loads, each wagon load containing 2130 pounds.



It is reasonable to assume that a large part of this difference represents the greater care and closer supervision which American housekeepers were beginning to exercise in the preparation of meals and in the disposal of left-overs.

Although these figures are for New York, the same saving undoubtedly was effected throughout the country. The difference in New York represents a salvage of  $2\frac{1}{4}$  pounds for each person for the three months. Assuming that each of the one hundred million persons in the United States saved two and a quarter pounds, it is not difficult to picture how effective have been the lessons in food thrift.



In this issue, we give a short account of a family of three compelled, during the recent fuel shortage, to do practically all of its cooking on two small electric stoves. This experience is told not with any intention of representing it as ideal, but of showing what can be done in an emergency. Statistics on the subject naturally are not available, but it is probable that there were many hundreds of families reduced to similar straits, where small electric stoves, previously considered more decorative than serviceable, saved their owners



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from very serious discomfort and heavy expense. Few households are able at a moment's notice to close up shop to take up an indefinite residence at a hotel.



An interesting feature of the experience described here is the fact that the fairly extensive use of current necessary did not prove as expensive as was anticipated. Comparing the bill covering most of that period with that of January, the difference justly attributable to cooking appears to be about two dollars, or about thirty cents per week for each adult concerned.

Another point worth noting tends to contradict the assertion commonly made, that the ordinary domestic servant will either be unable to operate electric cooking devices, or be extremely wasteful of current. The cook, in this instance, was a colored woman, less than two years removed from a small town in Georgia where she had never even seen an electric stove.



Just as electricity is being used in New York to mitigate the fuel shortage, so Denmark, with coal almost impossible to get, is maintaining her industries through the use of electricity. The difference is this—Denmark imports the energy from Sweden where the waterfalls of the country provide a supply that at times exceeds the Swedish demand. This excess is delivered to Denmark, a submarine transmission line across the water connecting the two countries. In New York, the Central Stations supply the greater part of the required power.

The principal Danish users of Swedish energy are the small villages in the

northern part of Sjoelland, although Copenhagen has at times drawn upon the supply. At times, during the dry seasons, there is no exportable surplus in Sweden. In fact, at present it is only for about six months of the year that the Danes can call upon their neighbors for help.

However, a beginning has been made and further development and extension of the system is being planned. Eventually, Copenhagen and other large Danish cities will draw a considerable supply of power for the operation of their street car systems. The plan has shown itself to be feasible and the only thing that stands in the way of immediate fulfillment is the difficulty of obtaining copper and electric transformers.



There is a certain similarity between the Danish cities and our own municipalities in their use of electricity. Both, in the fuel crisis, have come to depend more than ever on this form of energy. In the case of Denmark, though, the use of electricity developed by water power does away entirely with the burning of coal. In the case of American cities, many of them served by steam-driven power plants, the consumption of coal is inevitable. But the coal that these Central Stations use is burned at high efficiency, delivering far more energy than could possibly be obtained from the same quantity burned in several scattered and smaller power plants.

It is for these reasons that electrically operated factories are rapidly taking the place of steam-driven establishments, and that Central Station-served office and other buildings are superseding the building that generates its own current.



## The Edison Monthly



A Winter Nocturne

*Photo by C. H. Albis*

# Arc Lamps in Review

**B**LESSINGS, including the arc lamp, brighten as they take their flight. In fact, this old illuminant,

which has been discarded lately in favor of the high-watt-tungsten, beams back with a glow which pictures not only the brilliance of present enterprise but the early progress of electric lighting itself.

Peering down the long vista of its rays one discovers no less a genius than Sir Humphrey Davy at work on a battery the cells of which were applied to the consumption of sticks of charcoal. These sticks when ex-

posed to air and current were found, however, to waste away rapidly, and the lamp (or better, the demonstration) proved only a costly laboratory experiment.

The idea, after thirty years of neglect, was taken up by the great Foucault who replaced the word carbon with carbon deposited in gas retorts. This he cut into sticks. But trouble again set in, for this carbon disturbed the arc; and while a fairly steady light was forthcoming, the device had to be regulated by hand. An

automatic adjustment of the carbons was invented later by Thomas Wright of London, who made use of discs that rotated by clock work.

Improvement in the manufacture continued for some time and with it an improvement in the quality of the light produced. Still the lamp was subject always to the fatal limitations of batteries as sources of current. The modern period of arc lighting, which is based on dynamos as such sources, dates from 1870 when the Belgian, Graunve, succeeded in constructing an

armature which was essentially a soft iron ring wrapped around with consecutive lengths of insulated wire which formed thus a number of short, distinct coils.

Within six years a distinct advance had been made on both sides of the Atlantic. An arc lamp, invented by one Jablochkoff, was marked by an absence of the old cumbersome mechanism and showed instead two vertical and parallel sticks of carbon separated by an insulated material. This was consumed as the

## To the Arc Lamp

(Doused But Not Forgotten)

Your flame that beat across the dark  
In thronging street or silent park  
Is dimmed and gone.  
Your pulse of gold that charmed the sight  
With fulsome throbbings of delight  
Is past and done.

In vain the porch of mart and play  
That echoed back your ardent ray  
May seek you now.  
No more the crowding aisles of trade  
Your vibrant beams such pageant made  
Smile back your glow.

It's not that you with pride replete  
Have waxed presumptive or effete,  
As some might think;  
But simply that a new and brighter  
Has put you as a first-class lighter  
On the blink.

*Frank A Farnsworth, Jr*



## The Edison Monthly

parallel carbons burned away. The lamp soon appeared in many quarters and was used at the time in the Wanamaker Stores at Philadelphia.

The first arc lamps to be operated from a Central Station were installed by the California Electric Lighting Company of San Francisco. A system invented by C F Brush was used.

With a subsequent improvement in arc-lighting dynamos, arc-lighting companies began forming for street-lighting purposes. It was such a company that introduced the first electric street-lighting in New York. The installation which was made in 1881 supplied twenty-three open-series arc lamps on Broadway between Fourteenth and Thirty-fourth streets. So well received was the novelty that an additional installation of six lamps was made five months after this in Madison Square Park and another of the same size



Broadway North from Exchange Place, 1885. Note the Arc Lamp at the Right and the Telegraph Poles on Each Side of the Street

in Union Square. The poles used are said to have been 160 feet high. Of various more or less spectacular installations that followed, possibly the longest remembered was one at Manhattan Beach where a line of the lamps lit up the shore line with unheard of brilliancy.

It was in 1892 that The New York Edison Company first entered the street-lighting field and the illumination of Fifth Avenue was taken in hand at once. While the lamps used were of the open-series type then in vogue, the posts themselves, cast iron designs with fluted column and a tee tricked out in rosettes and leaves, were an innovation. From this time on, the lighting of the City's streets by



Fifth Avenue and the Windsor Hotel. One of the Original Arcs Shows at the Left



## The Edison Monthly

means of the arc lamp proceeded rapidly. The enclosed carbon arc was developed presently and at length standardized, and its use increased for many years by leaps and bounds. No other medium, in fact, could approach it for steadiness of light and reliability of operation. The demand for the lamp continued growing until 1908 when 42,000 were in use on the Edison System in Manhattan and the territory then served in the lower Bronx.

nitrogen filled-tungsten lamp. This, in addition to the advantages spoken of, produced forty per cent more candle power, made a more pleasing appearance, and gave a light that closely approximated daylight. Its superiority on these many counts received its due the last week of the closing year when the City authorities decreed its displacement of the faithful arc. A similar arrangement was entered into with a great majority



Primitive Arcs Fronting the Famous Niblo's Garden at Broadway and Prince Street. The Sign was Lighted by Gas Jets

Dating from this point, the arc, though still exceedingly popular, was forced to dispute the field with the then rising tungsten lamp. The arc lamp figure declined slowly at first but surely from 1908 on. Not only was the light of the arc seen to be inferior, but the changing of its carbons grew to be a troublesome task. The tungsten by way of contrast was found to have a longer life, and when it did burn out it could be easily replaced.

The climax arrived with the 500-watt

of the nine hundred and more private interests in Manhattan and the Bronx who were still making use of the arc lamp for display and indoor lighting.

That venerable lighter, in consequence, has practically beamed its last, as far at least as New York City is concerned. However, and to quote still more venerably, in its light both the city and the industry saw light—enough and more than enough to proceed to yet brighter possibilities.—*Requiescat.*



# Slip Motors

WHEN a broad gap of water still swirled between an incoming ferryboat and the slip, the hurly-burly of getting tied up used to begin. A deck hand would jump ashore, carry a rope in his hands, and with the help of those on the bridge, laboriously

docking of boats at a slip so equipped is a simple process, while teams that need assistance are drawn off in speedy fashion. Many of the ferries too, which discharge passengers from the upper decks of boats, use electric hoists to raise and lower suspension gangplanks, again eliminating the cumbersome hand labor of former times.

The truck winches are placed at one side of the team entrance to the dock, quite far from the boat itself. They take up little room, being most compact in construction as the entire mechanism is enclosed in a cast-iron case approximately three feet square and slightly less than that high. Another advantage of this construction is that it insures complete protection from bad weather or rough handling.

Such a winch makes short work of pulling up a team with a heavy load or convincing a balky horse that the one thing he wants to do is to hurry up that incline. The rope is passed through a pulley fastened at the head of the incline, then down to the boat and attached to the truck. But one man is necessary to operate the winch, for the motor is controlled by a simple foot lever and both hands may be used to haul in the slack as it winds off the winch. Thus urged, the team comes easily up the incline.

Winches, used to draw a boat easily to her dock, are of course placed at the edge of the bridge and are slightly different in construction but equally effective in operation. No matter how inadroitly a boat sticks her nose into the side bulkheads instead of sliding into her proper place, a few turns of the motor-driven



*Photographic Bureau of The New York Edison Company*

**Motor-Driven Equipment for Mooring Ferry-Boats to Their Slips**

moor the boat by turning a rattling hand windlass.

Another common sight was that of heavy horse-drawn trucks stuck on the gangway from boat to street. At low tide, especially when the incline was extra steep, hardly a team could reach the street without trouble. Every commuter is familiar with the conditions.

Modern ferry slips have eliminated these unwieldy features by the installation of electric winches. Today the

## The Edison Monthly

winch bring her snugly to the dock. The same motor operates the chains which are used to let down the suspension gangways above.

New York City's ferries have very generally adopted these efficiency devices during the last five years or so. At the present time there are some eight in daily use at the various ferry houses. The ferry to Staten Island, Fulton Ferry, and the railroad ferries at Cortlandt and Christopher streets are among the present users. The type of winch and hoist of course varies, but the general working principle and the uses of all are the same. As a help to speedy loading and unloading of traffic, and as aids in maintaining schedules they are proving invaluable, every day.

The new mattress does not differ in looks from any other except that a flexible wire enters it through a terminal which is flush at the surface and therefore not exposed to injury. The resistance wire is insulated by glass beads in flexible metallic tubing incorporated in the surface of the mattress. The mattress is differentially heated, and the



*Photographic Bureau of The New York Edison Company*

**Even the Heaviest Trucks Find Little Difficulty in Negotiating the Steep Low-Tide Incline of Ferry Slips, When the Motor is There to Help**

### Now An Electric Mattress

**A** MOST interesting application of electricity has lately been made by Dr H J Gauvain of the Treloar Cripples' Hospital at Alton, England. The necessity mothering the invention was a bed-warmer for pneumonia cases. Various efforts had previously been made at solving the problem by the use of a continuous current passed through suitable resistance, but these had failed as not providing for the wear and tear inseparable from bed-using and bed-making.

heating element is so placed that the maximum warmth is generated at the foot end, less in the middle, and none at the head end. This disposition of heat is maintained, no matter in what position the mattress is turned. The wires are connected with a switchboard near at hand which contains a variable resistance, so that the current can be graduated as desired. A fuse prevents any passage of current over this amount. While its manufacture has not yet been attempted on a business scale, the success of the new mattress is assured.



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

This Mammoth Building of the Trinity Corporation, Occupying a Whole Block on Hudson Street, Houses the New York Office of the Pittsburgh Plate Glass Company as Well as Other Dealers in Heavy Products. A Generating Plant with a Capacity of 750 Kilowatts was Recently Abandoned in Favor of Edison Service

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*Photographic Bureau of The New York Edison Company*

Another Building of the Trinity Corporation Which Has Come Over to Central Station Service with the Close Down of the Plant which Supplied the Entire Block Bounded by Hudson, Varick, Vandam and Spring Streets. This Building is Occupied by the Garvin Machine Company



# When the Coal Range Quit

IF ANYONE had told me that two small electric stoves, of what one might call the tea-table type, could have done nearly all the cooking for three adults and one child for more than two weeks—three meals a day—I should not have believed it. Now I do, because that was what ours did during the cold snap last December.

Like many other people in New York, we live in one of those old houses remodelled into apartments, so picturesque to view and so unburdened with modern conveniences. A certain modicum of heat comes through radiators; for the rest, the janitor sends coal up the dumb-waiter. We had electricity, and it proved our salvation; for as everyone knows, there came a time when coal ceased to come up the dumb-waiter. Until that hour, I had considered our two electric stoves chiefly as mechanical toys for grown-up children. However, when the fatal morning came, we seized upon those household pets and put them to work.

Luckily, they were of two types, one a regular toaster-grill, and the other an oblong stove fitted with two receptacles, one for tea or coffee, and the other for hot milk. The breakfast coffee was started

and then we wondered what else we could have besides toast. Bacon was suggested because it could be grilled in the pan below, while bread toasted on the



*Photographic Bureau of The New York Edison Company*

**A Breakfast of Cereal, Bacon, Toast and Coffee**

rack above. Bacon, we knew, was not according to Hoover, but we were desperate.

Later on, there were many things tried for breakfast, but the favorite proved to be panned egg; one has to invent a name to describe eggs cooked beneath in the grilling pan of a toaster-stove, while toast is browning above. Adding a little milk or cream produces a very good imitation of shirred egg. By utilizing the heat both

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above and below the heating unit at the same time, the work done by a given amount of current is increased.

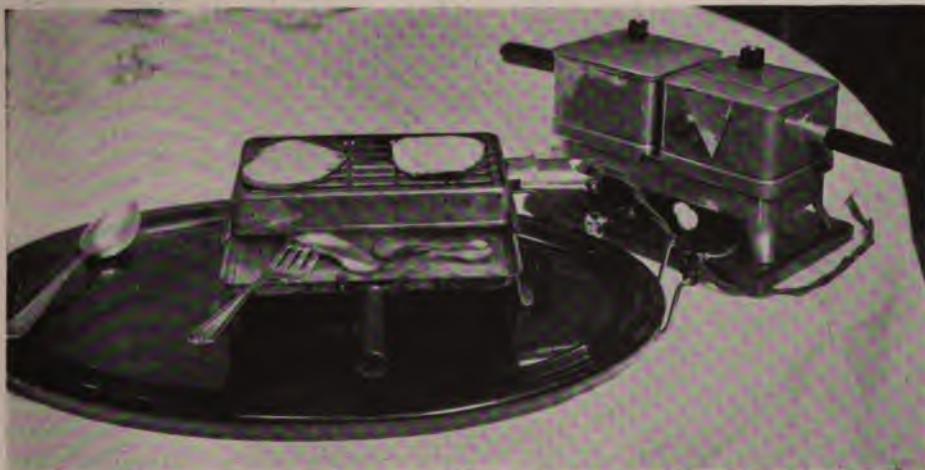
Luncheons were begun quite auspiciously with canned soup, heated on the oblong stove at the same time that water was boiled to be ready for tea. The first luncheon dish was sherried sardines on toast, the sardines prepared in the pan below while the toast browned above. By that time the tea could be served. For desert, fruit had to serve both for luncheon and dinner, except for an occasional blanc mange or jelly that could be made before meal-time.

For several days a combination of soup with eggs, bacon, or sausage that could be cooked in the grill pan were used for luncheon. This consumption of pork products, however, troubled my conscience and I tried to evolve some scheme to avoid it. Then it occurred to me that the closely covered utensil of the oblong stove would give a fair imitation of baking. Forthwith, scalloped salmon, baked crab-meat, and scalloped oysters began to appear on the luncheon menus.

All the creamed variations of these dishes can also be made in this utensil.

Dinner brought in the question of meat, indeed the most perplexing with the two tiny stoves. Lamb chops were the main stand-by, varied with sausage, bacon and minced beef—all done on the little grill. One night we broiled a mackerel, a half at a time, on the oblong stove.

If this were fiction, I should declare that we also cooked all our vegetables on the two stoves. We did not, unless heating a can of peas or of corn is called cooking. Theoretically, there is no reason why vegetables should not be boiled by the hour on a small electric stove. Practically though, we thought it would consume a great deal of current, so a little help was rendered by the fireless cooker. Unfortunately, that useful article was only too fireless those days, but by placing the discs above an oil heater and starting the vegetables boiling by electricity, too great a strain on the meter was avoided. This same combination method served for home-made soups.



*Photographic Bureau of The New York Edison Company*

" . . . They Were of Two Types, One a Regular Toaster-Grill, and the Other an Oblong Stove Fitted with Two Receptacles"



# The Lighting Companies' "Bit"

THE recent issue by the Government of War-Savings Stamps has again brought out the part being played in the various war activities by the lighting companies of the Greater City. Shortly after this issue appeared, these industries united with enthusiasm to devise plans for the sale of the stamps in the general and branch offices of the several companies.

Not only has the interest of employees been aroused but every effort has been expended to induce customers and visitors to the showrooms and offices to do their patriotic duty by the purchase of stamps. In view of the fact that every family of the metropolis is a purchaser either of gas or electricity, the lighting companies, more than any other agency, have been able to encourage War Stamp saving. One of the means made use of, is the enclosing of literature prepared by the National Committee with all bills and correspondence sent to customers. Special posters have also been distributed with a view to keeping this War-time saving before the notice of employees, among whom War-Saving Societies have already been organized.

A completed Service Flag containing 1200 stars was flown shortly before New

Year's from the lighting companies' building at Irving place and Fifteenth street. This impressive emblem which records the service of so many employees and managers of these organizations reveals in a striking way the zeal with which the lighting industry has answered the country's call for direct and personal sacrifice. The men whose professional ties have thus been severed are today training in the cantonments and in not a few instances are seeing actual service on the Western front.

A striking instance of the lighting industry's co-operation in "behind the lines" effort was seen in connection with both Liberty Loans. When the first of these loans was announced the lighting companies decided to put it within reach of their employees on the

installment basis. They anticipated a response of something less than half a million dollars. This sum however was realized a full two weeks before the close of the campaign. Indeed, many company departments were able to report a subscription from every man composing them, within forty-eight hours after the campaign was launched. When the books finally closed, 12,357 of the 15,410 employees on the various payrolls, or

## Will Silver Serve



TO EMPLOYEES:  
Make that 25 cents work for  
you and Uncle Sam-interest  
for you - war supplies for  
him - **BUY** - thru  
this Company's branch offices

## War Savings Stamps

An Effective W S S Poster Used  
in the Show Rooms of the Gas and  
Electric Companies of New York



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*  
Part of a Shipment of Knitted Goods Sent by the Young Women of the Lighting Industry

eighty per cent, were found to have contributed. The total of their subscription had reached the surprising figure of \$847,700.00. Nineteen companies made up the group of gas and electric properties participating in this act of substantial patriotism.

As in the campaign just spoken of, the allied lighting companies of the city offered Liberty Bonds to their employees on the occasion of the second great Loan. The project met with marked enthusiasm from the start, and subscriptions poured in daily in increasing numbers. When the drive was ended, the subscriptions were found to have aggregated over \$500,000.00.

Not content with supplying "silver bullets" to "assimilate with the brains of the enemy," the young women of the industry early organized themselves into an Auxiliary to the Red Cross. Work-rooms were pro-

vided them in the Irving Place building, and since the first, these rooms have been the scene of steady and enthusiastic activity. Members of the several groups went at the work with a vim. In fact the instructors in charge had no difficulty what-

ever in securing the quotas assigned them. Such has been the system and energy of the work begun that during a season of flannel-bandage making, no less than sixty dozen of these necessities were turned out in a week's time. This meant that each evening's work had to total twelve dozen bandages, torn, rolled, wrapped, and pinned ready for packing.

A reputation for efficiency gained by the Auxiliary in this work later resulted in a special call from New York County Headquarters for 192 dozen bandages and



*Photographic Bureau of The New York Edison Company*  
Appropriate Ceremonies Marked the Nailing of the First Case of Red Cross Supplies to be Shipped from the Auxiliary Work-Rooms



## The Edison Monthly

dressings of various sorts to be ready for shipment within forty-eight hours. Though part of these dressings were already on hand, a great number had still to be made, and on that and the following evenings the groups laid aside their ordinary work, and concentrated on the new requirements, with the result that the needed supplies were ready to be sent to the Red Cross Warehouse

already been completed, and other garments are soon to follow. Classes in First Aid, and other branches of Nursing Service, carried on by The New York Edison Unit of the Red Cross, were another feature of the industries' war endeavors. Since this work was started, 156 certificates have been awarded to those who completed the courses.

While the war-time enthusiasm shown



*Photographic Bureau of The New York Edison Company*

**The Liberty Loan Campaign Among the Employees of the Lighting Industry Netted Subscriptions of Nearly a Million and a Half Dollars. Harry Lauder Addressed One of the Rallies**

within the time specified. In addition to actual work of this description the Auxiliary was able to forward the sum of \$1037.00 as dues to Red Cross Headquarters.

No less than 150 young women of the allied companies have in the meanwhile been engaged in knitting for the soldiers under the auspices of the Auxiliary. Two hundred and sixty-six sweaters and an equal number of wristlets, together with nineteen pairs of socks, eighty-six mufflers and forty-two helmets have

by the lighting industry in the various phases of the work just sketched may be said to be typical of the enthusiasm manifested by other city industries, the companies represented are proud, and justly so, of the showing made. Their 1200 men now with the colors, their Loan subscriptions approximating a million and a half dollars, and their Red Cross activity are evidences surely of a whole-souled patriotism and sense of timely duty upon which any industry might well congratulate itself.

# The Edison Monthly

## "I Am My Maker's"

I am my Maker's!—Wrought of His vast will,  
I roam with His own sanction, hill to hill—  
He gave me fields of Space that I might play;  
He bade me claim the night-time and the day;  
He set no limits to my fleeing feet;  
My kingdom is the world!—Ah, Life is sweet!

I am my Maker's!—For He willed me Time,  
That I might serve the nations, climb to climb;  
When Adam came I smiled—for I was old;  
And when I face the future I am bold;  
For all the years are toys with which I play  
In one long, joyful, never-ending Day!

I am my Maker's!—And I claim His Pow'r;  
He gave me Space and Time—and now I tow'r  
Above my fellows with a regal might  
That rears vast cities bathed in glowing light;  
I am my Maker's!—Being His, I vie  
With ev'ry vaunting Force of earth or sky!

*Roscoe Gilmore Stott*







Century Old Rooming House and Junk Shop at 7 Peck Slip

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"At Your Service"



## THE NEW YORK EDISON COMPANY

GENERAL OFFICES: IRVING PLACE @ 15th STREET

TELEPHONE STUYVESANT 5600

BRANCH OFFICES	TELEPHONE	BRANCH OFFICES	TELEPHONE
424 Broadway	Canal 8600	151 East 86th Street	Lenox 7780
126 Delancey Street	Orchard 1960	15 East 125th Street	Harlem 4020
10 Irving Place	Stuyvesant 5600	362 East 149th Street	Melrose 9900
124 West 42d St	Bryant 5262		

All showrooms open until midnight

*Emergency Night and Sunday Call—Farragut 3000*

### TERRITORY SERVED BY THE VARIOUS SUPPLY OFFICES

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Streets, west of the Bowery and south of Catharine Street

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



## The Edison Monthly

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JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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Of the 14,053 fires occurring in New York during 1917, only 152 were attributable to defective electrical installations. The total property loss caused by these fires, as shown by the annual report of the Committee on Electricity of The New York Board of Fire Underwriters was less than fifty thousand dollars—\$47,496.29, to be exact.

During 1916, the loss from electrical fires was \$91,549.00, and for 1915, the loss was \$68,993.08. Of these amounts, however, a considerable part was due to fires in installations which had not been approved by the Board.

To determine the causes of all fires occurring in this city, and knowing the cause, seek to prevent their repetition, is one of the functions of the Board of Fire Underwriters. Through different committees it investigates every blaze, its Committee on Electricity specializing on fires *thought* to be of electrical origin.

Of the 1917 loss, \$33,428.42 is directly chargeable to new electric equipments or additions or extensions made to original equipments without the knowledge or approval of Board. Of the 1916 loss, \$73,750.00 is thus classified, and of loss in 1915, \$40,433.43 is so charged. Thus for the

three years the losses in installations which were supposed to be in a safe and satisfactory condition were \$28,559.65 in 1915, \$17,999.00 in 1916 and only \$14,067.87 last year.



The Underwriters reference to equipments and installations made without their knowledge gains an added significance in the light of a household hint published recently in a woman's paper, in which are given careful directions for the removal of electric fixtures, the installation of new fixtures and the running of wires, concealed by the base-board or picture molding, to all parts of the room. It's all very simple according to this paragraph, but—

It's the work of such amateur electricians that means the difference between, as was the case last year, a loss \$33,000.00 in unauthorized installations, and a loss of but \$14,000.00 in installations which were supposed to be in good order.



As long as horses are used for city hauling, food will have to be brought to the city for their consumption. And, aside from the fact that the shipping of such equine supplies means an added burden to the country's transportation systems, some of the grain products could be used for human consumption if the horses didn't have to have it. Further than this, vast quantities of hay, grain, straw, and oats are required in Europe for the animals of the Allied armies.

With an alternate method of handling urban deliveries, it is indeed un-



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fortunate that so many horses should still be in service in our cities. The electric truck is far better for the work than horses, a fact which is proving itself in the daily performance of hundreds of these vehicles in every branch of city industry and commerce.

And the electric—clean, economical and dependable—has an added claim to consideration now in the fact that it deprives no army horse or mule of much needed fodder, and that no farm product which otherwise might be eaten by human beings is required in its upkeep.

The truck for the city is the electric!



Figures talk. An engineering analysis of operating conditions will disclose with remarkable accuracy just what the cost of a certain process will be. The electrical engineer for instance, after studying the light and power requirements of a building can tell within a few dollars, how much electric service will cost for that building.

Such engineering analyses, made during the past year, have established in sixty-three instances, the fact that electricity could be purchased from the Central Station for less than the cost to operate a private generating plant. The result—sixty-three private plants, as related elsewhere in this issue of *The Edison Monthly*, have closed down. And now, after several months experience with electric service as rendered by The New York Edison Company, managers of these properties are outspoken in their praise. Experience with Central Station service as contrasted with that given by the private generating plant

leaves everything in favor of the former.

"We couldn't wish for anything better," says the manager of one big establishment. And another, "The thing is running famously, and at less cost than we could have supplied ourselves." A charitable institution reports the new arrangement "in every way satisfactory," and a club, formerly a Central Station user, later a private plant operator and now back again on the Edison System finds the service everything the Company claims for it and cheaper too, regardless of fuel conditions.



So much for the advantages accruing to those using the service of the Central Station for electric light and power. To them it represents a saving of dollars and cents.

There are broader aspects of the situation though, aspects which concern the whole city, and particularly a city in the grip of a fuel famine. With householders compelled to wait in line for their day's supply, every pound of coal that could be made available for home consumption represented a distinct lightening of the burden. And a great many pounds were made available through the closing down of these sixty-three plants, for it is an accepted fact that the large Central Station can get more energy out of a given quantity of coal, than can the isolated plant.

The Central Station has made possible lower costs of operation for building managements—what is more important, a great fuel saving was brought about during a fuel situation unprecedented in City history.



## The Edison Monthly

### Love's Labor Saved

A Poetical Youth with a Practical Girl  
Fell madly in love, and with heart all awlirl  
He cried, "Let us fly to some spot far away  
From the city's wild rush and frivolities gay;  
To the sweet, quiet country, where rustic delights  
Shall gladden our days and make happy our nights,  
In a wee little cottage,"—

But here he switched off,  
For the Practical Girl, with a sniff and a scoff,  
Laughed, "Wee little nothing! No *sir*, not for mine  
The roses that ramble and vines that entwine.  
Imagine the dusty old stove! And the tubs  
For doing the washing and family scrubs!  
Just think of the kerosene lamp! And the broom  
That raises more dirt than it sweeps from the room!  
This 'love in a cottage' *sounds* awful romantic,  
But slaving and drudging would sure drive me frantic.  
Electrical service gets rid of all that:  
There's more time for love in a wee city flat!"

—*Frederick Moxon.*

# "The Proof of the Pudding"

**I**F doubt is still felt in any quarter about the big-building advantages of Edison Service, the extent of its adoption the past year should remove all question. For during these twelve months no less than sixty-three big properties did away with self service and were connected with the Central Station mains.

Two points are of interest here. One is that in every one of these cases

investigation brought out the fact that street service could supply the property more efficiently and more cheaply than a plant. The other is the great variety of the buildings involved. While commercial structures with loft, office, and store buildings of many types head the list, hotels, apartment houses, clubs and institutions come close behind. Entire manufacturing plants also figure in this convincing total of Central Station converts.

While it would hardly be possible in one short article to go into the facts about every type of property among the sixty-three spoken of, the fundamental facts in five typical cases can be given briefly. What the building managers themselves have to say goes straight to the point.

One of the most interesting of these sixty-three properties is the famous De Vinne Press. When asked what he thought of Edison Service, the manager of the firm, Mr A W Bothwell, exclaimed, "Why, we don't know it's in the building. It's as smooth as a book agent. We couldn't wish for anything better."

The De Vinne plant, which consisted of two 75 kilowatt generators,



*Photographic Bureau of The New York Edison Company*

The Big Fur Storage Plant of M Groh's Sons in West Twenty-eighth Street



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was closed down the last week of the past year. Yet even in this short time the merits of Central Station supply have made themselves felt. The installation includes 500 incandescents and 150 horse-power. The estimates were made on a consumption of 350,000 kilowatt hours yearly.

"Your service," concluded Mr Bothwell at the end of a scant five minutes snatched at random, "is wholly satisfactory for our purpose. You can quote me as saying just that, for I have found it to be the unvarnished fact."

A series of convincing tests ending last August brought about the close-down of the plant in the big fur storage establishment of M Groh's Sons at 238-250 West Twenty-eighth street. The thing started when the plant went



*Photographic Bureau of The New York Edison Company*

The "Progress Club," a Former Edison User, Tried the Private Plant Idea for Awhile—Just Long Enough to Prove Its Fallacy

on strike one night the April before. A valuable lot of furs were endangered, and the concern lost no time in turning for help to the Edison Company. Eventually the plant was abandoned, and long term contracts signed.

The success of the scheme is some-



*Photographic Bureau of The New York Edison Company*

"House of the Good Shepherd," a Big Edison Current User



## The Edison Monthly

thing that the manager, Mr R H Schwarzer, has no doubts about. "The thing is running famously," he asserts, "and at less cost than we could have supplied ourselves. The fact that we're using your service ought to be proof enough that it is cheaper. It wouldn't have paid us to keep on with our generators."

Back in July "The Langham," the great apartment house occupying the whole block front on Central Park West, between Seventy-third and Seventy-fourth streets, came on Edison Service. Estimates had been drawn up the Fall previous, and a contract was about to be signed, when the building was sold. The new owners tried out the plant for some months, then consented to look over the Edison

figures. A conference or two decided the matter.

Mr Harry Alexander, in charge of the property, finds street service "O K." "You know the good points about your service," said he. "There's no need of my going into them. We like it, that's all." The power equipment of "The Langham" consists of over twenty motors which aggregate 422 horse-power.

The "House of The Good Shepherd" at Ninetieth street and the East River is another recent Central Station convert. The plant here was being run under exceptionally good conditions, for large quantities of live steam were needed for laundry work. However, Edison estimates were invited and a substantial saving was pointed out.

The result was the closing down of the two 100 kilowatt units that supplied the institution together with two steam turbines that operated centrifugal pumps for a hot-water heating system. The new arrangement is proving "in every way satisfactory."

Up-to-the-minute clubs like up-to-the-minute people learn by trying. Some years ago, the well-known "Progress Club" at Central Park West and Eighty-eighth street was won over by the private plant idea. It tried making its own current and it kept on trying till last summer. By that time certain of its members began to suspect that



*Photographic Bureau of The New York Edison Company*

"The Langham" on Central Park West—and Edison Service



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they had an expensive luxury down in the engine room. An Edison investigation was agreed to, but due to the doubts of other and conservative members, it resulted simply in a breakdown connection.

However, the estimates stayed in the manager's desk, except, that is, when they were pulled out for reference. It got so finally that they were pretty much in evidence. In fact, the conservative wing, even the Extreme Right, got gradually used to them. And so it happened that one day when the Edison Man called in he found a real welcome. The Progress Club, after due consideration, had decided to be progressive and let the Central Station do what it was meant for.

This took place almost a year ago, long enough surely for the management to form an opinion. When said management, in the person of Mr Percy M Bibas, was asked his opinion he did not mince matters. "We have not regretted the change in service one moment since the plant was abandoned," said he. "We have found your service to be everything you claimed for it at the time the change was made."

"And you have found it cheaper, Mr Bibas?"

"Sure!" he replied, just like that. Then, by way of good measure, "Some may say this is due to present conditions, but we feel here you could save us money at any time."



*Photographic Bureau of The New York Edison Company*

Edison Service Has Made Good, Permanently Good, at the De Vinne Press

## Family-plate Surgery

OF the thousands of treasured pieces of plate that have been handed down from generation to generation, not all have had the care that a real antiquarian would bestow. Neglected and battered around until most of their former beauty was lost, such pieces have eventually found their way to the seclusion of the china closet.

Then, years later, an iconoclastic descendant has demanded that "that tea-pot be fixed or thrown out." Thereupon a trip to the jewelers, who declares that to be mended, it must be "sent away."

And if the history of all these thousands of urns, platters and silver dishes that during the past sixty-seven years have been "sent away," could be traced, it would be found that the great majority of them went to a silversmith in New York's downtown jewelry district, who specialized in the repair of such articles. From 1850 till 1889, this unusual craft was housed at 26 John street and since that time at 88. The original electro-chemical repairing silversmith, John Nuhn,

brought his trade here from abroad, sixty-seven years ago, the present proprietor, Mr Frederick Kuehne, beginning his apprenticeship under Nuhn, in 1870, and later succeeding to the ownership of this unusual business.



*Photographic Bureau of The New York Edison Company*  
Dents Are Beaten Out and Missing Parts Restored  
Before the New Plating is Applied

Electro-plating even in this country antedated the Central Station, for the first Edison plant in Pearl street was not put in operation till 1882. Together with electro-typing, electro-plating is the oldest electrical industry, for it became a trade while scientists were still dependent on batteries as a source of power.

Just who is entitled to claim the discovery of galvanoplasty, as it was then called, is a bit uncertain, various authorities awarding the honor to an Italian, Brugnatelli; an Englishman, Spencer; a Scotchman, Cruickshank; a Frenchman, de la Rive; and a Russianized German Jew, Jacobi.

Apparently, the strongest claim is that of the Italian Brugnatelli, a chemist of Pavia, who in 1805 "gilt in a complete manner two large silver medals, by bringing them into a communication by means of a steel wire,



## The Edison Monthly

with the negative pole of a voltaic pile, and keeping them, one after the other, immersed in ammoniuret of gold, newly made and well saturated." Owing to the disorders in Italy during and following the Napoleonic period, these researches were lost sight of for many years, so that a generation later, the scientists of many lands, in good faith, announced their achievements as discoveries.

Thus it happened that an English gilder, Thomas Spencer, in 1839 presented a report embodying the results of similar experiments to the British Association, which failed to print his paper. In that same year, Jacobi, the Russian-German philosopher, announced his discovery of galvanoplasty through the Berlin Academy.

Discussing this situation, the English author of a work on electro-metallurgy, writes in 1851, "Perhaps I may call the attention of scientific men to the fact that persons are

actually employed by great Continental Powers to find out everything new that is discovered in this country, which, in a very few hours, can be conveyed to any part of Europe." The author doesn't mention which European power was thus engaged in building up its scientific reputation, but the charge has a curiously modern sound.

Whoever discovered or re-discovered electro-plating, many men must have been at work upon it, for the British "Enrollment Office" records show twenty-seven English patents granted for electro-metallurgical processes from 1840 to 1848.

The new discovery quickly became a fashionable fad, and just as people today take up art-metal work, so England after 1840 had its electroplating fever. It went so far that "a pretty application of the art of coppering" was recommended to horticulturists, who were invited thus to preserve their prize specimens. Apples,

pears and grapes were the favorites, and occasionally even potatoes and carrots were thus made objects of household adornment.

One regrets to admit that almost the first industrial use of electro-plating was in the counterfeiting trade. The gentlemen of that dubious profession were quick to seize on this as a way of putting thin coatings of silver and gold on base coins. These same men could



*Photographic Bureau of The New York Edison Company*

The Big Vats, in which, by Means of Electric Current, Old Plated Ware is Restored

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*Photographic Bureau of The New York Edison Company*

The Old C & C Motor Generator Set Has Been in Service Since 1889

doubtless, had they been so minded, have made honest fortunes in the new plating industry.

New York was certainly not so very far behind the times to possess in 1850 its own electro-plating repair shop, considering that the business had been started on the other side of the Atlantic less than ten years previous. But between the shop at 26 John street and the present one at Number 88, there was this radical difference; to-day (and since 1889), by simply turning a switch, Edison current supplies the power needed for all processes. Then, lathes and buffers were driven by foot-power, and current for plating came from Bunsen

batteries, huge cumbersome affairs that had to be regulated every morning at least.

The work-shop itself looks like an up-to-date, scientific witches' cave, furnished throughout with mysterious caldrons, turning out a very modern witches' broth. In the remaking of plated ware, the first thing is to "strip" the silver, getting down to the base metal of which the object is made. It is then passed on to the repairing silversmiths, who hammer the piece into shape again and supply missing parts. Back then to the vats it travels to receive the coatings of silver or gold.

To enumerate all the different mixtures employed would form a long list. There are lye and acid baths for cleansing, since electro-plating is possible only with chemically pure surfaces. There are vats for washing and three or four silver caldrons, the "foundation" being given in one and the finish being put on in the others; there are dishes of gold solution, sitting around as casually, apparently,



*Photographic Bureau of The New York Edison Company*

The Finishing Touches Are Given by Old Craftsmen, with the Aid of Motor-Driven Polishing Machines



## The Edison Monthly

as if they contained soup; there are cyanide baths for removing tarnish, lathes and buffing wheels, and benches where purely hand burnishing is done. The very multiplication of paraphernalia shows why the repair of silver-plate is a profession in itself, and the quality of the work explains the uninterrupted existence of the firm for the past sixty-seven years.

The electric equipment is not as ancient as the establishment itself, yet it speaks well for the sturdiness of machinery turned out even in the beginning of that business. Current for the electro-plating is furnished by an old motor-generator set of the "C and C" make, the nameplates of which bear the date 1889. It has been in continuous service ever since then, and the proprietor can see no abatement of its youthful vigor.

### Cabinet Work by Motor

THE discerning visitor to our best department stores cannot fail to observe how much the good appearance of these establishments depends upon the character and workmanship of walls, cabinets, counters and other wood fittings. It is interesting to note that such equipment for stores like McCreery's, Gimbel's, McCutcheon's and Lord & Taylor's is manufactured by the Ammann Manufacturing and Construction Company whose large factory at 155-163 Avenue D has recently made a change to Central Station service.

In this factory there are now operated from Edison mains fifty-one different machines, most of them with individual motor drive, employing a total of 283 horse-power. To effect

saving of floor space all motors are installed on the ceiling, operating with well-protected belt drive. The machines include those for cutting moldings, for making grooves in panels, for boring and mortising, for dove-tailing, for sawing scroll work and for other processes.

A conspicuous feature of the factory operation is the absolute elimination of all dust and shavings. This is effected by a blower system. An exhaust pipe leads off from each machine and through this by the action of a thirty-one horse-power motor, all waste material is carried to a huge flume and thence to the roof of the factory. Here fumes pass off into the air, and the shavings and saw-dust drop by their own weight down another flume into the furnace room where they feed the fire that supplies heat for drying wood and for warming the building.

Finishing processes require one whole floor of the factory. The wood, after treatment by an electric sand-papering machine, is varnished or veneered as the case may be. Glue is applied by an electrical machine from whose two rollers it is quickly and evenly spread on the strip of veneer as it is run between; then a press which exerts a force of 250 pounds to the square inch fastens the veneer securely upon its panel.

Within the factory a three-ton electric elevator operated by a twenty-five horse-power motor aids in the handling of the lumber. Cartage and delivery outside is cared for by a two-ton Walker electric truck, which is charged from an outlet in the building. This capable truck is six feet wide and twenty-three feet long.



# Coffee Milling—Old Style

THE fact that prehistoric peoples enjoyed one of the greatest of present-day luxuries is seen on looking up the history of the coffee-berry. When coffee invaded and seduced Europe was, comparatively speaking, but yesterday. Bruce, on his hunt for the Nile sources in the 1600's discovered, not what he was looking

huntsmen of the African inland.

The use of coffee at this time had also become general throughout the neighboring Moslem World, but not without religious opposition. The Arabs upon noting the stimulating effect just spoken of had at first been delighted then conscience stricken. That the Koran eventually lost out

may be gathered from the record of a 14th century Mullah who, being hard put to it to keep his religious awake at their nightly devotions, bethought himself of the new beverage. The result more than outdid his pious expectations, and to the attributes of plain coffee was added forthwith the odor of sanctity.

If any doubt is felt of the rapid and subsequent

adoption of coffee drinking by the Mohammedans, it suffices to quote an imperial firman promulgated at Constantinople in 1550. "Shall a man refuse to supply a wife with four khems of coffee daily, the same shall constitute a valid cause for divorce."

All this would argue, of course, a better preparation of the berries than that common among the primitives; and when one recalls the mechanical aptness of the Arabs in small matters the conclusion is foregone. Grinding, especially, received the painstaking attention due this feature of the coffee process. Berries too coarsely ground were found to need extensive boiling;



*Drawn by Edna Hood Lisak*

A Latin American Grinding Contrivance Still in Vogue in "El Campo"

for, but something quite as important for our purpose, namely, a curious and immemorial use of the bean among the tribes of Ethiopia. Whether he came upon these aborigines drinking their after-dinner coffee is not recorded. He did bring back accounts and specimens of its use in the shape of balls made up of grease mixed with roasted coffee which had been ground finely between stones. These prototypes of the modern concentrated food tablet were carried on long hunts and on the frequent war expeditions even then popular. They had, too, the odd property of nourishing not only the bodies but the spirits of these soldier-



## The Edison Monthly

and then as now too much boiling was fatal. On the other hand, the disadvantages of too much grinding were quite as evident.

The grinder in use yet among the Arabs of the desert sprung from the necessity of a portable mill, small enough to slip in a saddle pocket. Many specimens of these grinders have been brought back by tourists from Stambul and Damascus. A grinder of this size seems at first an anomaly, as the leverage needed would appear to exceed the pocket dimension. The device which is of the shape and size of a marine telescope contains a solid inner cylinder of brass, corrugated at intervals, and these corrugations fit in corresponding grooves in the outer case. Leverage is obtained by means of a strong metal handle some twelve inches long that may be detached when not in use. The grinding itself is regulated by the turning of a screw in the base of the mill which forms a permanent cup. The natives use the handle as a nut cracker, a make-shift hammer for minor purposes, and even at times as a weapon of defence. This machine, which enjoys a monopoly among the Arabs, grinds the berries to the extent typical of the best Arab coffee.

It is thought that the Venetians in their commercial voyagings as far west as the Atlantic and up the continental coast were responsible for introducing coffee among the European states. Here, if one is to judge from the literature of the

times, coffee met with a welcome, eager and long drawn. In view of this fact, it is not surprising that the nations who in turn bore the trident westward should have taken coffee with them.

While the beverage established itself firmly with the settlers of the North Atlantic seaboard, it may be said to have gained a special triumph in the warm countries to the south. Indeed, the natives are known to have taken to it with a readiness that has survived in the great industry flourishing at present on those soils.

The grinding of the roasted berry among the aborigines of the lands just referred to was and still is a very primitive matter. In numerous localities, notably in the mountains, two well worn stones answer the purpose.

A mortar-and-pestle arrangement of wood is said to be in use still throughout the *selva* country where the abundance of workable wood suggests its use for every domestic purpose. The Indians and *mestizos* of Mexico enclose the berries in a flannel sack which is laid on hard ground or pavement and beaten vigorously



*Drawn by Edna Hood Lianak*

Wooden Mortars and Pestles in Use at Present in the Brazilian Back-Country



## The Edison Monthly



*Drawn by Edna Hood Lissak*

An Arabian "Five O'clock" with Plenty of Atmosphere

with a flattened stone. But farther south, and particularly in the great coffee regions of Brazil, the grinding for home consumption is done after the manner of the up-to-date machines by which the shiploads of export coffee are handled on their arrival north. In other words, there has been a wide spread adoption of electricity for motive power by the industry as a whole. A trip through one of these modernly equipped roasting and grinding mills will be described in a following article.

### Ireland Claims First Small City Lighted by Electricity

CARLOW, a small Irish city, situated about 38 miles from Dublin, and in the centre of the richest agricultural section of the Green Isle, claims the distinction of being the first town of its size in the world to be lighted by electricity. The

system was installed in 1884 and was in operation in 1887, the year of Queen Victoria's Golden Jubilee. American education and training were, however, responsible for Carlow's leadership, as William J. Handley, the engineer who did the work, was the American son of Irish parents. He made his studies in electricity in Cornell University and served a short apprenticeship at the Edison Shops in Menlo Park, N. J. As a reward for his initiative, Her Majesty bestowed upon him a special decoration, and the South Kensington (London) Society presented him with a gold medal.

Mr Handley found the river Barrow, which flows through Carlow and a number of important towns, wonderfully adapted to the establishment of power plants and, in fact, he was the pioneer in Ireland in this regard. When he died in 1906 he had placed well-established power plants in a number of Irish cities and, in this manner, wrote his name large on the industrial progress of the people. This fact is evidenced by the industrial plants one sees on every side. The city of Carlow was so well prepared to do its bit in the war because of its well-developed power facilities that its former large ornamental iron works is very busy turning out munitions while, by some legerdemain, its mineral water factory became a large boot and shoe factory overnight.

The original electric lighting system in Carlow consisted of iron posts about eight feet high, on each of which was placed a single incandescent lamp behind which was set a reflector about 12 inches in diameter. The posts were set 200 feet apart and were extended over two and one-half miles of street.



## The Edison Monthly



The Same View in the Closing Hours of a Winter's Afternoon

## The Edison Monthly



Down-Town Looking South from the Building which Houses the Long Distance Telephone Exchange









Twenty-first Street and Ninth Avenue

VOL X

MAY, 1918

No 12

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"At Your Service"



## THE NEW YORK EDISON COMPANY

GENERAL OFFICES: IRVING PLACE @ 15th STREET

TELEPHONE STUYVESANT 5600

### BRANCH OFFICES

424 Broadway  
126 Delancey Street  
10 Irving Place  
124 West 42d St

### TELEPHONE

Canal 8600  
Orchard 1960  
Stuyvesant 5600  
Bryant 5262

### BRANCH OFFICES

151 East 86th Street  
15 East 125th Street  
362 East 149th Street

### TELEPHONE

Lenox 7780  
Harlem 4020  
Melrose 9900

All showrooms open until midnight

**Emergency Night and Sunday Call—Farragut 3000**

### TERRITORY SERVED BY THE VARIOUS SUPPLY OFFICES

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Streets, west of the Bowery and south of Catharine Street

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



## The Edison Monthly

**The Edison Monthly**  
Published by  
**The New York Edison Company**  
General Offices  
Irving Place and Fifteenth Street  
New York City

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N F BRADY, President  
JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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The Edison Directory, formerly a department of The Edison Monthly, is to be printed and distributed in new form. Instead of being an integral part of the magazine and issued every month, it will be printed separately and distributed quarterly.

It has been found that while constant revision is necessary to keep the Directory up-to-date, the changes are not of frequent enough occurrence to require monthly correction. Therefore the quarterly issue. While the new directory is, in a sense, a supplement to the Edison Monthly, it will also be distributed independently—by mail upon request from those who are interested in it and through the showrooms of The New York Edison Company.

The purposes of the Edison Directory and the Edison Showrooms are more or less identical. Primarily, they are to aid in the sale of electrical appliances of all kinds—the showrooms affording a place for the display and demonstration of current-operated devices, the Directory presenting the name and address of every manufacturer, agent, contractor or dealer in every form of electrical appliance.

Any one who makes or sells electrical appliances is entitled to the

privileges of display in the Edison rooms and to listing in the Edison Directory. His wares will be shown by the showroom attendants and explained and demonstrated. The same consideration will be accorded to each device shown by our selling staff, but the final choice naturally must lie with the purchaser.



While the motor truck is proving a big factor in supplementing the transportation facilities of the country, the fact remains that only a small part of the potential usefulness of the vehicle is being realized.

Intercity trucking service shows how the truck is backing up the railroads; long trips from inland manufacturing centres to the sea-board indicate the application of the truck in army transport service. Indeed, the total of trucks in service today is approximately half a million, and assuming an average capacity of two tons each, the motor vehicle alone has freight carrying facilities of nearly a million tons. This huge bulk may be better visualized when it is compared with the freight capacity of the giant Leviathan. It would take twenty Leviathans to carry the freight that these vehicles could transport to the docks. On the further assumption that each truck averages three trips a day, these 500,000 trucks have a daily capacity of 3,000,000 tons.

Yet while our trucks have this immense carrying capacity, the fact remains that far less than half of it is being used. According to figures compiled by the Commercial Car Journal, seventy per cent of all our trucks make one-half their trips



## The Edison Monthly

empty. That is, they are either empty when they go for a load of freight, or they return empty.

Under what is very fittingly known as the "Return Load Movement" the motor truck interests are now seeking to overcome this great waste. Just what the solution will be remains to be seen. It will require considerable study, naturally, and there must be close cooperation among owners if the number of empty trucks is to be materially reduced. But any movement that is going to increase the Nation's freight handling resources by not less than a million tons a day is worth considerable study and should be backed by the closest co-operation.



That 100,000,000 tons of coal would be saved if the steam railroads of the country were operated electrically was one of several startling statements made recently by E W Rice, Jr, President of the American Institute of Electrical Engineers.

"Where electricity has been substituted for steam in the operation of railroads," he said, "fully fifty per cent increase in available capacity of existing tracks and other facilities has been demonstrated.

"Electric engines speed up schedules as high as twenty-five per cent, and cold weather that paralyzes the steam lines does not hurt those electrically operated. Of the 150,000,000 tons of coal used in 1917 to operate the steam roads two-thirds could be saved under electric conditions.

"Electrification of the roads would save 100,000,000 tons of coal in one year, or three times as much as the

total coal exports of the country, while ten per cent of the ton-mileage of all of the roads now given to the transportation of coal could be saved by electric current. In addition to the coal waste, 40,000,000 barrels of oil, or nearly fifteen per cent of the total output, goes to engines and could be saved by electricity.

"It is really terrifying to realize that twenty-five per cent of the total amount of coal which we are digging from the earth each year is burned to operate our railroads under such inefficient conditions that an average of at least six pounds of coal is required per horse-power hour for the work performed."



The public utilities of the country have been confronted by tasks of great magnitude as the nation has adjusted itself to the business of war. Particularly is this true of the wire companies as shown by the annual report of the American Telephone & Telegraph Company.

Not only did the companies contribute fourteen battalions of picked officers and men to the Signal Corps of the Army, but two million additional miles of wire were strung, and 15,000 miles of toll wire and 27,000 miles of circuit wire for telegraph use were taken from commercial service and devoted exclusively to the needs of the Government. Altogether, the company paid out \$118,000,000 for additions, a total fifty per cent over any other year. Additions to its existing plant amounted to what is virtually the equivalent of the entire telephone system of many of the countries of Europe.



# The Edison Monthly

## Coronation

The Great Force lingered on his cloud-made throne  
And mused upon his triumphs there alone:

"I claimed one day as mine—*one little day*—  
And raced the vagrant winds, a child at play.  
The World stood strangely still nor *could* it move,  
While I sat laughing in my haunts above.  
The millions moaned and cursed, and baffled Trade  
Sat weakly down—wild-eyed and all dismayed.

"I claimed one night as mine—*one little night*—  
And toward glad stars I took my carefree flight.  
The World was strangely dark, a thing of fear  
That called for help—and knew no help was near.  
The millions moaned and knelt upon the sod  
And prayed to me—and I became a god."

*Roscoe Gilmore Stott*

# Murray Hill- Then and Now

**W**HY certain localities masquerade under certain names is a puzzle hard to explain. Investigation is apt to reveal some testy old personage whose name the neigh-

borhood, in its eagerness to forget, only succeeded in adopting as its title.

Not so with Murray Hill. While the Misters Murray were most estimable gentlemen, a resourceful Mis-

tress Murray dominates local history and local identity. Her exploit was no less than the saving in 1777 of a good part of the Revolutionary Army.

Some years previous, when the city was still enclosed in palisades, two roads departed northward, one the historic Post Road and the other leading along the East River to Brooklyn Ferry. It was near the former of these highways a good three and a half miles from the city line that Robert Murray, one of the foremost Quakers in the colony, built him a country seat. The spot chosen was what was known as Ingleberg or Beacon Hill from which could be had a commanding view of the entire Island. Extensive fields stretched round about, in one of which, dedicated in those days to a flourishing corn crop, the Grand Central Station stands today.

At the time of the



*Photographic Bureau of The New York Edison Company*

Looking South from the Once Wooded Crest of Murray Hill



## The Edison Monthly

Murrays, the hill and its environs were practically encircled by two water courses. The northernmost rose near Broadway and the present Forty-fourth street and ran in a devious course, but nevertheless parallel to Broadway, as far as Thirty-fourth street. It then curved east along the line of the Post Road, later swinging north and crossing Second avenue on the line of Thirty-fourth street. At Madi-

son avenue and Thirty-second street the stream expanded into a pond that extended to the present Fourth avenue, covering the site of the modern car barns. This lakelet was called Sunfish Pond and was considered an exceptional fishing resort. Though in times of prolonged drought the pond nearly disappeared, on occasions of great rains it made up for the deficiency by flooding the whole country surrounding so that dwellers within the section, excepting the family on Murray Hill, were compelled to seek safety in boats.

During the years immediately preceding the War of Independence the Murray family and the Murray estate were alike esteemed and frequented by the well-to-do of New York society. Not alone were the big mansion and its ample board synonyms of hospitality, but the far reaching grounds in their partial rusticity proved a decided lure to dwellers in the rapidly congesting city area. Always conservative in politics, Robert Murray, as difficulties with



The Old Murray Mansion Which Was Destroyed by Fire in the Early 1800's

the Crown became aggravated, was held to be quietly Tory in his sympathies. That Lady Murray shared her husband's sentiment was assumed apparently by the Tory element and later by the British Army. Their mistake furnishes the sensational incident that makes up the historic background of Murray Hill.

It appears that Lord Howe, then at Trenton, had learned through his scouts of the intended withdrawal of the Colonial forces from lower Manhattan. To block this retreat the General with an army of three thousand hurried to the waist of the Island with the intention of intercepting the movement and incidentally of capturing the Continentals' supplies. Lady Murray's patriotism if previously concealed now blazed to the fore. Hastily dispatching a maid to the house-top to report the Revolutionists' march under Putnam, she herself took her station at an upper window to watch for the Britishers.

The maid had not long to wait, as clouds of dust, rising presently among



## The Edison Monthly

the tree tops, revealed Putnam's course along a sun-baked road well to the westward. Simultaneously the scarlet coats and well-groomed horses of the English appeared down the Post Road. By the time the head of the column reached the estate Lady Murray had descended from her lookout and was waiting at the entrance in apparent welcome. Lord Howe, reining on his powerful horse, asked abruptly, "What road has that rascal, Putnam, taken?" Waiving the question, Lady Murray urged him and his staff to partake of refreshments temptingly displayed at this juncture by a servant. Though assailed in a traditionally weak spot, the English commander persisted, "I must be after Putnam." "But thou art late,

William Howe," returned the graceful Quakeress. "Putnam is already beyond thy reach. Alight and enter." Never a quiver betrayed her anxiety, and seemingly never a doubt of her sincerity troubled the General. Alighting with his retinue, Howe proceeded to refresh himself while the imperiled Putnam fled his dusty way to Harlem and safety.

After the Revolution, Murray Hill along with other up-island estates served as points for pleasure pilgrimages. At this time the question of reviving theatres and other amusements was brought up only to be discouraged by the seemingly omnipresent Puritan. Summer heat, however, compelled the diversion mentioned, a half-day's outing costing,

including carriage hire, but fourteen shillings. Two shillings more were demanded for Gracie's Point, opposite Hell Gate.

That Murray himself would have approved this simple recreation appears from his life-long use of a comfortable coach called by him his "leathern convenience" to avoid the scandal of pride and vain-glory. When Murray died he willed Murray Hill to his daughter Susan, together with a parcel of land on Golden Hill, now Gold Street. The Murray mansion, unfortunately, burned in 1835.

Unlike Yorkville, its neighbor to the northeast which water-front manufacturing was to



How Mistress Murray Held Up the Enemy in the Revolution



## The Edison Monthly

turn to a thriving commercial district, Murray Hill retained until recently a distinctively residential character. Indeed, it remained residential in the face of remarkable changes on every side. With the business invasion of downtown, the well-to-do who had previously resided in Hanover Square, Wall street, and Broadway nearby, were obliged to move uptown. And what more attractive than the cool and somewhat isolated elevation of Murray Hill.

Partial transition from residential to commercial began in the early 1900's, and affected Fifth avenue particularly. Here the change showed itself in the making over of dwelling houses for shops of the better class. The advent of great institutions of department store proportions took place surprisingly soon. In the meanwhile and in fact until today Park avenue has not altered to any degree.

Madison avenue, however, has undergone more transformation. In fact up to Thirty-fourth street, it is little other than commercial. The advent of commercial structures above this point has been the cause of much recent activity on the part of the Murray Hill Society. Really sizeable loft structures have so far taken to other streets.

Anticipating a commercial growth along the side streets leading off Fifth avenue, The New York Edison Com-



*Photographic Bureau of The New York Edison Company*

**What Electricity and Modern Construction Have Accomplished on Murray Hill in the Last Few Years**

pany as early as 1887 began the extension of its mains within the district. By 1906, such was the residential and business demand for electricity, that a sub-station was built at 151 East Thirty-ninth street. Loft buildings in considerable numbers had appeared by this time on the cross streets between Park and Fifth avenues, while old residences were already giving place to modern apartments. A conservative development in both lines has marked the progress of Murray Hill up to the present.

Of notable manufacturing establishments the section proper possesses practically none. If compensation were called for it is to be found immediately to the eastward in the great Edison power stations erected in 1901 and 1906 respectively.

## The Edison Monthly

### Electric Trucks and Waterfront Congestion

A STUDY of conditions along West street, reveals, even to the untrained observer, what the war has done in tying up the freight terminals which border the North River. Before every pier or freight station, interminable and slow moving lines of every sort of vehicle are found, each awaiting a turn to drive up and deposit loads of merchandise.

Many remedies have been suggested but as yet no concrete or feasible scheme has been worked out to overcome this shipping handicap. It is an accepted fact, however, that the motor vehicle should play an important part in solving the problem. Indeed the electric vehicle has shown marked capacity for the work. The users of this type of truck throughout the city voice the opinion that it is a necessity if any kind of business is to be transacted at all. Horse-drawn

conveyances, it has been found, are the cause of a great deal of the trouble, their slow movement delaying all other freight carriers.

When asked how the three electric trucks serving his establishment were operating in these abnormal times, Mr L I Whitlock of the Whitlock Cordage Company, 46 South street, promptly responded that only now he began fully to realize what an advantage his firm had over his horse-served competitors. Mr Whitlock added that he disliked to think of the difficulties his company would have had to contend with if electric delivery cars were not available.

"If it were possible to abolish every horse truck and substitute electrics, I think the congestion about the terminals would be fifty per cent better as soon as the plan was put in motion." This observation was made by Mr A B Hoppe of the Liggett, Riker, Hegeman Company after he had been asked whether his three

large electric trucks were assisting his concern to cope with the war-time congestion. This same statement has been offered by practically every user of the electric. "We tackle the task in a systematic way," Mr Hoppe continued, "and this, I conclude, is the reason why we have had such success in getting



*Photographic Bureau of The New York Edison Company*

One of the Two Electrics Which Overcome Vexing Transportation Delays for the Welch, Holme and Clark Company



## The Edison Monthly

our shipments to and from the piers. We find the most opportune hours in which to send our trucks out and the result is that when they arrive, the line of waiting vehicles is comparatively short. Thus with only a brief wait our trucks advance and secure their consignments. So, you see, with this policy and the electrics to support us, we are able to hold our

from a host of users of the electric sum up in part why it is looked upon with favor at this time in preference to other types of trucking. In the long waits the electric stands idle without any mounting expense. The gasoline motor car is often kept in operation; sometimes because an irresponsible driver does not see the need of practicing economy; some-



*Photo by General Vehicle Company*

**These Three Electric Trucks Handle the Transportation Needs of the Whitlock Cordage Company**

own in face of all the difficulties."

Down at the Welch, Holme and Clarke Company, 383 West street, the officials took special delight in describing the manner in which their two electric cars outdistanced the horse trucks in the trip to the terminals, thus securing for themselves more favorable positions on the forming lines. Also they remarked upon the simplicity of operation of the electrics, which makes it easier to worm around in the overcrowded districts.

Generally gathered information

times because the cold weather makes it necessary to run the engine to prevent a freeze-up. Then the repeated starting and stopping whenever the long lines move, entails considerable wear on the gears. Manouvering in confined spaces is another virtue of the electric and it is this which helps greatly in speeding up the loading and unloading at the freight stations. And too, the electric, which is not a fire hazard may enter any pier or warehouse, a factor of great importance for it avoids rehandling.

# Coffee Mechanics

WHILE the wind is bound to make some difference, it is along about Duane street that one traveling by the Ninth avenue "L" notices a strong smell of coffee. A big building on the north side and displaying the name "John W Haulenbeek" looks responsible, and in fact is responsible. Assuming that the reader has smelt the smell but never looked into the source, the following coffee-logue is offered.

The beans when delivered here have

already been dried and husked on their native heath. Great platforms of concrete called *glacis* exposed them for days to the tropical sun. A trip in sacks on muleback brought them down trails that wound about through the hills that sheltered the groves. The husking took place in small mills inland, or else in more ambitious establishments at the shipping ports where the beans, once the husks had been removed, were sorted and sized by sharp eyed mulatto girls.

The coffee at the Haulenbeek mill reverses the proverbial order for men and things, for it starts at the top and works down. That is to say, the twelve big electrically driven roasters that begin the process are found up under the roof. A glance through the front of one of these ovens shows a moving mass of half roasted beans pouring up and about before the paddle-like blades of a propeller screw. The container itself is a cylinder of heavy metal screen under which coal fires are kept blazing away vigorously. A curious trowel-like affair that is inserted from time to time into the oven opening gathers in a few of the roasting beans for sampling. This does not have to be done



Photographic Bureau of The New York Edison Company

A New Type Electric Grinder Intended for Store Use



## The Edison Monthly

often, however, as but twenty to twenty-five minutes are required for roasting.

When the roasting is over, the beans have to be cooled. A row of shallow metal screen bins that stand on rollers opposite answer for this purpose. These bins are rolled across the three or four feet to the ovens, and the beans are poured into them down chutes from the oven mouths. By the time the bins have been rolled back into place, a connection with a ventilating system has been adjusted and a motor at the end of the loft is put to work driving a suction fan, pipes from which communicate with a suction box beneath each bin. The heat in the freshly roasted beans is removed, in this way, in the remarkable space of two minutes, a great

contrast to the hours that used to be devoted to the work. Delivery chutes that open in the floor beside the bins distribute the coffee to different points in the mill below.

An odd looking contrivance near the roasters is explained as a motor-driven cleaner. It seems that the beans, when they arrive from the south, need at times a good brushing over before they can be put in the ovens. The cleaner consists of a brush that revolves over a sieve through which the foreign matter is dropped into a waste receptacle underneath.

Grinding between stones, a method still in use among the Indians to the south, is the principle employed in at least one type of electric grinder, for in this apparatus one stone is set stationary and a second revolved against it. A gauge allows of all degrees of fineness. Another type of grinder makes use of two metal plates that revolve in a sieve. As the flanges



*Photographic Bureau of The New York Edison Company*

**Modern Motor-Driven Grinder for Handling Coffee in Bulk Quantities**

come up with each revolution, the coffee is dropped back to be crushed again and again until the desired fineness is obtained. Motors aggregating in all fifteen horse-power supply the grinder equipment of both descriptions.

The brushing device, already spoken of, is not always sufficient, it seems, to remove all the waste material in the newly arrived coffee. A second cleaner that is found on the floor with the grinders does the trick still more effectually. The beans are rolled down an incline over a sieve



## The Edison Monthly

surface the mesh of which is regulated to the size of the beans to be treated. Powerful suction that operates beneath draws down the bits of stone and other matter while the beans themselves continue on to drop into a chute at the base of the incline.

In addition to an electric freight elevator on which the bagged coffee is brought from the final grinding to

device intended for coffee cutting on a retail basis and brought out recently by the Master Cutter Machine Company, Inc. The electric cutter of this machine, which is intended for use on a store counter, is fitted with a set of hardened tooth burs that work in positive alignment by radical and thrust ball bearings. This method of driving burs of an interlocking tooth

type makes possible any grade of pulverizing or granulating on the one set.

The coffee, when introduced into the hopper, is broken just enough to release the chaff which is carried away by air blast and deposited in the drawer of a display deck. An electric light that flashes up as the current is turned on shows this chaff removal and makes strong advertising.



*Photographic Bureau of The New York Edison Company*

Roasting Ovens (Right) and Cooking Sieves (Left) in the Haulenbeek Mill

the street level, an electric system of bucket elevators communicates with the roasting ovens from every floor.

A total of one hundred horse-power answers for the various machines in this progressive establishment. Edison Service supplants a steam equipment that was used by the company in another building occupied until recently. Its superior advantages have become apparent to every one connected with the work here.

While speaking of the wholesale aspect of modern coffee grinding, reference should also be made to a

### Chained to a Wheel

Since Franklin coaxed the tiny spark  
With flying kite and key,  
The human brain hath fought the dark  
That other men might see.

Earth's mighty minds have captured  
Jove,

Have bound him down with steel,  
Around him miles of copper wove—  
Then chained him to a wheel.

They belt the earth with shining rails,  
Then hitch him to a train,  
The strength of Jove no more avails  
Against the human brain.

*Lou E Cole*



## Transforming Wash-day

**T**WO hundred electric washing machines a day or in all \$10,000,000 worth were sold for use in American homes during 1917.

These figures, which surprised even the electric industry itself, show to what an extent the public has come to value modern washing methods. Yet the fact that the electric washing machine is one of the greatest labor savers ever invented does not itself explain this sale. It is safe to say that a good part of the households now using a motor washer would not have bought it on this single inducement. They saw at once what the machine would do; still most would have gone on in the old way rather than spend the money for one themselves.

But two other facts enter in. In the first place, the machine can be paid for on the deferred plan. In the second place, what one costs is about what the average family spends a year in washing bills. This output—a dollar and a half, perhaps two dollars a week—is largely done away with by the electric washing machine. Added to this is the undisputed fact that clothes washed in this rubless way last three and four times as long as when washed on a scrub board. In other words, an electric washer is an investment and one that pays for itself in less than a year. Over sixty thousand American families realized this during the past twelve months, and today they are reaping the ben-

efits both in money and labor saving.

But the principle of the electric washer. You may not have given much personal thought to the why and wherefore, yet you certainly do not put a piece of Irish lace in a tub with the other clothes. You fill a bowl with hot, soapy water and souse the lace up and down in it, forcing the water through by dipping and squeezing. The result is a piece of lace as clean as snow and as good as new.

The reason is this: Dirt is a combination of grease and dust particles; this grease is dissolved by the alkali in the soap and the dust then can be flushed out by the action of the water. It is on this principle—first of dissolving the grease, second of water action—that the electric washing machine has been gradually but surely developed, and it stands today the one scientific and efficient means of washing fabrics of all kinds.



*Photographic Bureau of The New York Edison Company*  
Part of a Typical Electric Washing Machine Exhibit at the Edison Showrooms



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**Practically Every Late Type of Motor Washer Is Included in the Edison Displays**

The wringer serves again to run the clothes into the rinsing water.

Another and most important factor in favor of the electric washing is that families who have objected to having the washing done at home and who consequently have put it out will be able by this means to have the work done pri-

As usual, the clothes should be put to soak before washing. When the time comes to begin washing, a new syphon device fills the tub of the machine up to the water line with hot water and enough soap is added to make a good strong suds. A few seconds after the electricity has been turned on the motor gets under full speed and the turning of a lever sets the tub in operation. In no time at all the motion has produced all the suds needed.

The motor wringer which comes with every machine enters in at this point. The washer of course is backed up to the stationary tubs where the clothes lie soaking. By turning a little lever this wringer is set going and the clothes are passed through it from the soaking water into the machine tub which then starts up again. Six or eight minutes—according to the sort and condition of the clothes—launder the tubful, the equivalent in most cases of eight good-sized sheets.

vately in their own clean tubs.

In order to introduce these modern washers more widely the Edison Company at present is conducting demonstrations at its various showrooms. These demonstrations are being made daily and show in a practical way and at closest range just how an electric washing machine works. Furthermore, the trials are made on the basis of the average household—apartment household—conditions where space and efficiency are leading factors.

Not one special type, but machines of various types and capacities are being made use of. This is because every motor washer, like every other scientific device, is built with a special object in view and will apply in one case where its neighbor, equally efficient in its way, might not apply. All are being shown and demonstrated in order that you, with your particular needs in mind, may be able to select just the one that suits your purpose.



## The Edison Monthly



Completed in 1915, the Hallenbeck-Hungerford Building in Lafayette Street, Essayed Private Plant Operation and Installed Equipment of 700 K W Capacity. Central Station Service Has Since Displaced the Plant, The New York Edison Company Supplying Current for 2500 Lamps and 800 Horse-power in Motors

## The Edison Monthly



A Private Generating Plant Supplied the Wool Exchange on West Broadway, for Upwards of a Score of Years, to Be Displaced in March, 1917, by Central Station Service. Two Thousand Lamps and 150 Horse-power in Motors are Now Supplied by The New York Edison Company







Drawn by C. B. Falls  
The Old Iron Works in Grosvener Street

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“At Your Service”



## THE NEW YORK EDISON COMPANY

GENERAL OFFICES: IRVING PLACE @ 15th STREET

TELEPHONE STUYVESANT 5600

BRANCH OFFICES	TELEPHONE	BRANCH OFFICES	TELEPHONE
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126 Delancey Street	Orchard 1960	15 East 125th Street	Harlem 4020
10 Irving Place	Stuyvesant 5600	362 East 149th Street	Melrose 9900
124 West 42d St	Bryant 5262		

All showrooms open until midnight

*Emergency Night and Sunday Call—Farragut 3000*

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Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



## The Edison Monthly

**The Edison Monthly**  
Published by  
**The New York Edison Company**  
General Offices  
Irving Place and Fifteenth Street  
New York City

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N F BRADY, President  
JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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When, in a year's operation, an electric truck shows a saving of \$5.27 a day as compared with horse drawn trucks for the same work, it doesn't take any great gift of prophecy to foretell the advent of more electrics. Nevertheless when such a prediction does come true, an "I told you so" may be pardoned.

In September 1913, THE EDISON MONTHLY after describing the operation of a three and one-half ton electric truck in the service of the wood-yard of the Charity Organization Society—an operation which showed a saving of sixty-six cents for every cord of wood delivered—ventured the prophecy that it was only a matter of time before the ten horses then engaged in the same work, would be disposed of and their stall room fitted up as a garage room for electrics, and that another electric would be purchased.

The prophecy came true much sooner than was anticipated; in fact, during the following year a second electric was added and in the four years of its service, as described elsewhere in this issue of THE EDISON MONTHLY, has made good on the same impressive scale that has marked the service of the first vehicle. Delivery of wood today by electric trucks costs an

average of \$2.02 per cord, while by horse trucks the cost is \$5.59 per cord. These records are based on the figures for an entire year.

The prediction was that all the horses would be disposed of. That has not quite been met, for five animals still remain, the present wood business of the Society being more in the winter than even two hard pressed storage battery vehicles can handle.



In the rush of production incidental to the demand for war equipment of all kinds, it would indeed be unfortunate if steps to safeguard the great industrial army necessary to the work were neglected. Particularly is this true in view of the fact that many war workers are comparatively new to the ways of shops and factories.

It would be a poor policy indeed that sacrificed safeguards either by reason of economy or for the sake of deferring until some other time a matter that doesn't seem urgent. Most emphatically it is urgent: not alone for the sake of protecting the workers themselves, but for the sake of speeding up production, for it is an established fact that workers who are not constantly confronted with the hazards of their work perform their tasks more quickly.

There are two ways in which manufacturing establishments can safeguard employees. The first is by the installation of various protective devices on the machines. The other, which ranks equally with the first, is the installation of adequate and properly designed lighting. The reason for good lighting is obvious. The workman must see what he is doing



## The Edison Monthly

or he will spoil the job. A blindfolded workman would damage every piece of material he handled. To hamper a workman with poor lighting or inadequate lighting is equal to a partial blindfold. Thus not only is the efficiency of a machine lowered, but the skill of an artisan is discounted.



It has been estimated that nearly one-fourth of all the accidents occurring in industry are directly chargeable to improper lighting. Of the 91,000 industrial accidents recorded by the Travelers Insurance Company in 1910, 23.8 per cent were due directly or indirectly to poor lighting. This relates only to the accidents investigated by this one company. For the same period, one estimate puts the total industrial accidents in the country at 500,000, and using the Travelers percentages, we have in round numbers 125,000 accidents due to the lack of proper illumination. That of course was eight years ago, before illuminating and safety engineers had gone as deeply into the problem as they have since.

Naturally, figures so startling brought forth many inquiries, with the result that steps were taken to bring about a reduction of this industrial hazard. Insurance companies began to study lighting conditions in factories before classifying the risk; and as proper lighting resulted in lower premiums, it wasn't long before factory managers and their engineers worked out better methods of illumination.

Recent figures are not available, but it has been said that during the

past two or three years the reduction in accidents chargeable to lack of proper illumination is approximately thirty per cent from those of 1910. That figure in itself is gratifying, but as it still leaves nearly 90,000 of 1910's accidents it would seem there is still room for great improvement.



In the light of the present scope of Electrotherapy, and the many uses to which electricity is being put in both medicine and surgery, the following editorial from a Lima, Ohio, paper of thirty years ago throws an interesting light on the journalistic prophets.

"The use of electricity in treating patients for certain ailments is said to be quite common, and in some places it is furnished by a wire leading from electrical power company to the physician's office. There is manifest danger attending such an application of electricity. The wires used for this purpose are charged with a low current, but if a street car or electric light wire should happen to fall upon the wire being used upon a patient, it is likely that both physician and patient would speedily disappear from the scenes of worldly activity. We are informed that since the accidents resulting from the fall of street car wires this use of electricity has been abandoned by the few physicians who were thus using it in this city. They know the danger that lurks in the subtle fluid and will take no risks."

In the hundreds of thousands of treatments in which the Edison System has had a part there has never been a single harmful accident.



# The Edison Monthly

## Nocturne

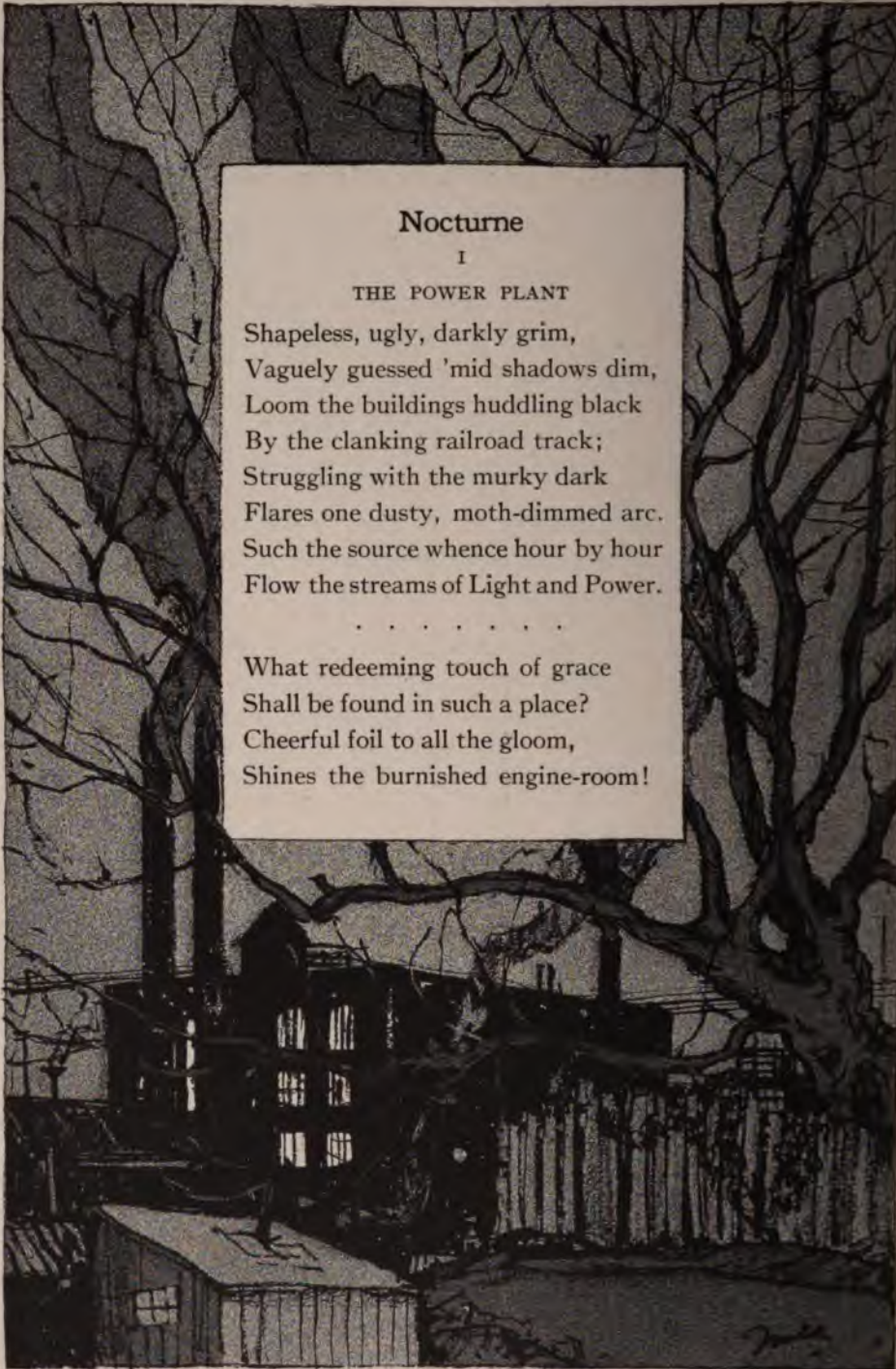
I

### THE POWER PLANT

Shapeless, ugly, darkly grim,  
Vaguely guessed 'mid shadows dim,  
Loom the buildings huddling black  
By the clanking railroad track;  
Struggling with the murky dark  
Flares one dusty, moth-dimmed arc.  
Such the source whence hour by hour  
Flow the streams of Light and Power.

. . . . .

What redeeming touch of grace  
Shall be found in such a place?  
Cheerful foil to all the gloom,  
Shines the burnished engine-room!





# The Edison Monthly

## Nocturne

II

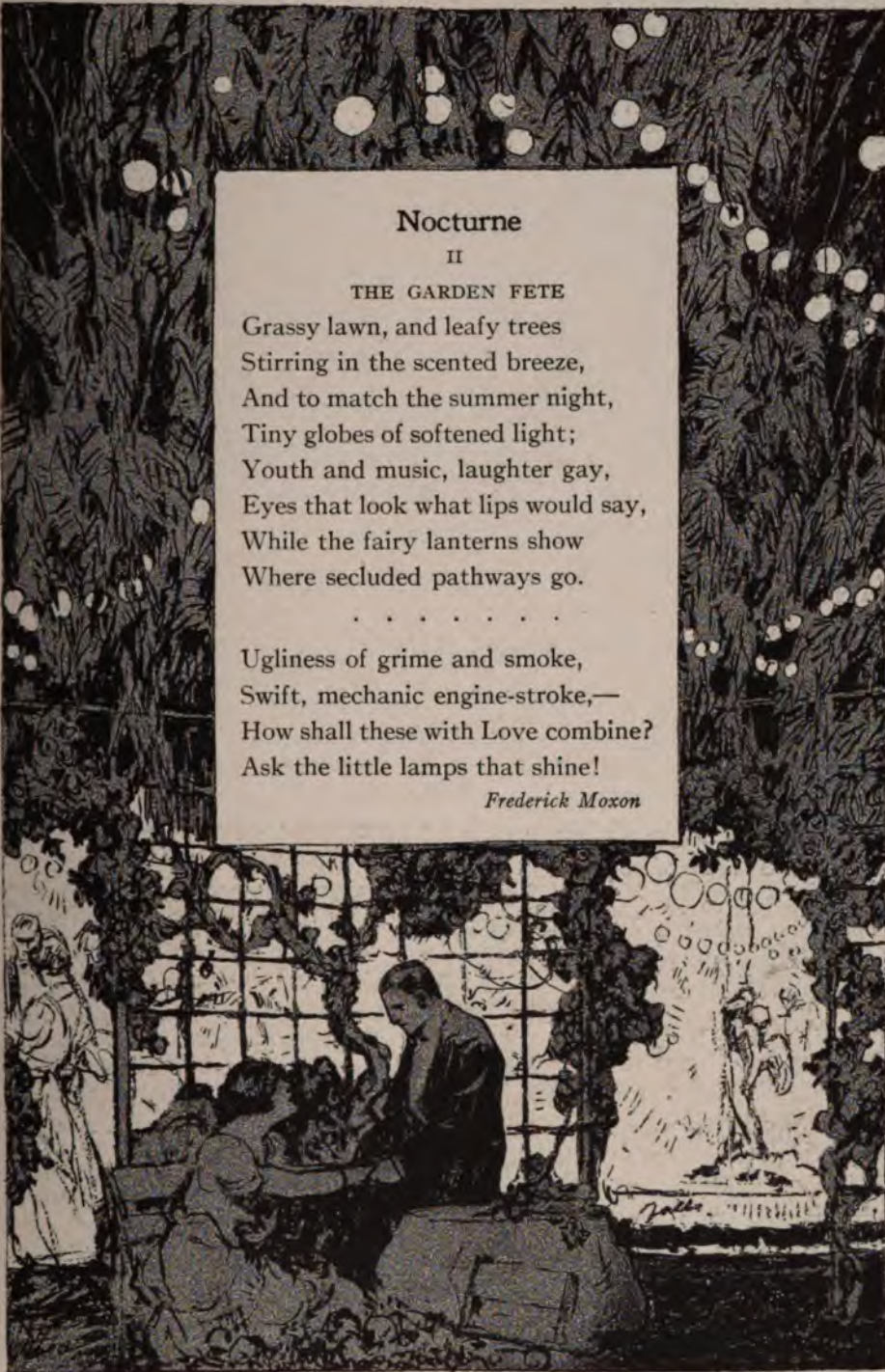
### THE GARDEN FETE

Grassy lawn, and leafy trees  
Stirring in the scented breeze,  
And to match the summer night,  
Tiny globes of softened light;  
Youth and music, laughter gay,  
Eyes that look what lips would say,  
While the fairy lanterns show  
Where secluded pathways go.

\* \* \* \* \*

Ugliness of grime and smoke,  
Swift, mechanic engine-stroke,—  
How shall these with Love combine?  
Ask the little lamps that shine!

*Frederick Moxon*



*Decoration by C. B. Falls*



## Cots and Crows-nests

THE average New Yorker knows in a way that war construction, high tension activity that is rushing ahead with ships and supplies, has approached as near as Staten Island. He and precious few of his neighbors realize that it is pounding and throbbing away right down in West street.

The writer a few days since had the good fortune not only to look in on this vortex of war industry but to be shown about the several departments. Great electric hammers were sounding on all sides; motor blown forges lit up the huge black surfaces of shell boxes and glanced on the perspiring faces of crowds of workmen; current driven drills, lathes, planers and presses ate into and machined plates and castings of many descriptions; and ever and again the gold banded caps and tense faces of Naval officers appeared as stirring accents amid the commotion.

For here it is that equipment for scores of transports and supply vessels plying between American ports and Europe is sent for repairs. And here, too, much of the new apparatus needed is designed and built.

The shops referred to are those of Stephen Ransom, Incorporated, 408-10 West street, where the firm has been in opera-

tion for the past fifty-three years. Back in the old days, the work consisted in making and repairing iron parts for the sailing ships of the period. When iron ships driven by steam began to edge out these old "square riggers," the Ransom Shops kept abreast of the times and were enlarged as the case demanded. Gradually the scope of the work came to embrace all angles of the marine repair and supply business and the house became known as one of the largest and most reliable in the country. The past twelve months of unprecedented activity in this line have found the company as usual on the alert, with the result that an extensive addition has just been finished and put like the rest of the establishment on the Edison mains. In fact, what is proving to be a 1000 per cent increase in the work would hardly be possible on any other basis.



*Photographic Bureau of The New York Edison Company*  
Motor Blown Forges and an Electric Hammer Installation

## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**Work on the Pipe for Use in Transport Cot Frames**

At present a big Shipping Board contract for manifold valves is taking up much of the space and attention in the old building. The work is heavy and calls into play powerful planers and boring mills, each of which is driven by a motor of its own as a special precaution against accidents and delays. On this basis, should trouble of any sort happen, only one machine would be affected instead of a whole row, or perhaps a whole shopful, as is sometimes the case where shaft drive is made use of.

The remainder of the space here and indeed a good deal in the new building is given over to the making of bunks for transports. In fact thousands of these metal frames are now under way in the Ransom Shops. Galvanized iron pipe is employed for the work and is cut into proper lengths by electrically driven apparatus. The elbows for the corners, like everything else called for in these shops, are made on the premises—patterned, cast, and machined. When the four sides of

the frame have been joined, provision is made for stretching across canvass to support the necessary bedding.

If a man is not too particular about the clothes he has on, he can pick his way among machines and stock piles to the stairs at the back that lead to other departments on the floors above. The alternative is one of the biggest elevators in the city. Still, there is no prospect of his having this all to himself, for likely enough he will have to squeeze on board along with an auto truck or a horse drawn truck that is taken up, horses and all, to unload directly at a certain floor. Seven tons is the capacity of this elevator which is driven electrically and is proving a wonderful labor saver and time saver. The writer went up in it in company with a great truck full of tin and zinc bars, for use in making alloys, that were put off at the foundry floor. This alloy work, by the way, is considerably helped by the use of oil furnaces electrically blown.



## The Edison Monthly

In one of the busiest of these upstairs departments, crows-nests were being fitted and hammered together for the masts of transports. A crows-nest is not thought of commonly as a sizeable affair, yet these circular galleries of galvanized sheet iron look little short of immense when seen close up. The work is made in two pieces which are joined after being fitted about the masts. A battery of motor driven sheet-metal working machines was hard at it here not only with crows-nest parts but with parts for ventilators and life-raft tanks.

As already mentioned, patterns for all castings are made on the premises. The department is a big one where motor driven wood working machines of all sorts are kept busy meeting the requirements for new work.

The ground floor of the new building is taken up at present by shell-box making. These great black ammunition containers which tower up into the smoke of forges and furnaces are machined steel and heavily riveted. Inside are shelves and racks for shells of specific sizes.

Amid the din of riveting and ham-



*Photographic Bureau of The New York Edison Company*

**Electric Lathe Equipment at the Ransom Shops**

mering a dull and heavy pounding calls attention to an enormous electric hammer facing the forges. One not knowing what the thing was might take it for some novel kind of pile driver. A bar of white-hot metal too big to be shaped entirely by hand is drawn out from its forge and laid fierce and glowing under the hammer. More or less hand hammering starts it bending at the desired angle, but when this is through with, the great plunger of the hammer comes down with a thud that jars the establishment and settles the shape of that particular bar beyond question.

In the process just cited it is tense, time-grasping efficiency that is the order, and the same thing applies in every department. There is work to be done—growing amounts of it that must be handled in the shortest possible time, yet with the highest possible workmanship. There was one and only one dependable source from which energy could be gotten. That is why current—Edison current—is found driving every machine here and co-ordinating these processes that mean so much to the successful transporting of men and war supplies.



*Photographic Bureau of The New York Edison Company*

**Every Machine in the Pattern Shop is Motor Driven**



## For the Khaki and Blue

**T**HERE are hundreds of places in and near New York where the men of the Army and Navy may spend their off-duty time with great profit. And there are a good

many places which it were just as well that soldiers and sailors have nothing to do with. In the undertaking to bring together the men of the service, and the various agencies which are operating for their entertainment and welfare, the War Camp Community Service is fulfilling a task of importance and magnitude. Its scope covers the entire country, for the War Camp Community Service in various training-camp cities is nothing less than the local representative of the War Department and Navy Department Commissions on Training Camp Activities in Community Organization, better known as the Fosdick Commission.

What the W C C S is doing on a tremendous scale in New York it is also doing in every other training centre in the country. Hardly a man in the service, except of course those who are quartered near their home towns, but has shared in some form the hospitality of the Commission. This does not mean entertainment and recreation in camp—the W C C S has no part in the soldier's life while he is in camp. It is when he is "On His Own"—off duty and with several hours or a day or two to do with as he pleases,—that he finds in the W C C S a means to put every minute to the best advantage.

It has been said, and perhaps with reason, that New York is not much of a home town and that its hospitality runs mostly



*Photographic Bureau of The New York Edison Company*

This Big Hotel, like the Several Other W C C S Buildings is Supplied with Edison Current



## The Edison Monthly

to the Great White Way and cabarets. However that may be, soldiers from the West and South passing through on their way "over there" have reason to feel differently. And the records of the New York War Camp Community Service show why.

When 563 men are sent to private homes as dinner guests of families who know them only as soldiers away from their own homes, it is pretty good evidence that New York is not all self-centered. That is what happened during the week of April 8-14, and from five to six hundred such invitations are accepted every week.

But bringing hospitable families and strange soldiers together is only a small part of the work. Our amusement managers and providers are just as anxious to help. During



*Photographic Bureau of The New York Edison Company*

**Letters Home**

the week of March 24th, 778 theatre, skating, and sight-seeing tickets were distributed. Most of them were free, some were at reduced rates, and on others it was necessary to pay only the war-tax. During this same week 1210 men received through the W C C S, invitations to dances and entertainments, one of which was a concert by the Russian Symphony Orchestra at Carnegie Hall for the bandmen from nearby forts.

The controlling purpose of the War Camp Community Service is to meet the real needs of the soldiers, sailors and marines in both the United States and the allied services when "off duty" in New York City. These needs may be social or they may be physical. They may be in the direction of wholesome recreation which shall occupy the mind of the en-



*Photographic Bureau of The New York Edison Company*

**The Phonograph Provides a Never Failing Source of Entertainment**

## The Edison Monthly

listed man in town to the exclusion of harmful amusements, or it actually may be a comfortable place in which to sleep at a price an enlisted man can pay, rather than a tough lodging house in which the man while he sleeps may be robbed of everything he has.

Where any now existing organization can meet all or any of these needs the War Camp Community Service attempts nothing more than to bring the organization and the men together by its field work and its various publicity activities. The work of the Service is in such cases completed. But where any need is incompletely met the War Camp Community Service either gets existing organizations to undertake the work; or it directs a new organization in getting it done.

While the big purpose of the War Camp Community Service is to bring together these various agencies for the welfare of soldiers and sailors, it by no means rests content when this is accomplished. Witness the big hotel on 27th street near Sixth avenue. This hotel of eight hundred beds is operated entirely by the W C C S and is exclusively for the enlisted men of the army and navy. When its own capacity is exceeded, as it frequently is on Saturday and Sunday nights, it arranges with other agencies for the care of men, and it has frequently taken care of as many as 1068 men on a single night.

The charge is only a quarter, and bathing facilities go with the rooms.

This big hotel is known as Unit 5. There are four other Units operated directly by the War Camp Community Service. Unit 1, known as the Harvard Unit, is at Seventh Avenue and 33rd Street and is open until midnight. It has sleeping facilities for twenty-three men, and its reading room and canteen are visited by upwards of three thousand men a week. Unit No. 2 is at Seventh Avenue and 39th Street and is conducted by the National League for Women's Service. This too is open until midnight, and it provides a canteen, game and reading rooms, dances, choral singing and French classes.

The Women's Department of the National Civic Federation conducts Unit 3, at 17 East 41st Street, with the usual canteen, game rooms, showers, dances and entertainments. Unit No. 4 at West End Avenue and 93rd Street is known as the Sailors' and Soldiers' Home Club and is conducted by the National Special Aid Society.



*Photographic Bureau of The New York Edison Company*

More than a Thousand Men are Provided with Sleeping Accommodations on Saturday Nights at Unit 5



## The Edison Monthly

In addition to the music and game rooms, there are frequent evening entertainments. Sleeping accommodations are provided for fifty men, and there is a standing invitation for twenty to Sunday dinner after church at the homes of neighbors.

Another Unit recently opened by the W C C S is the club for officers, in the old home of the Princeton Club, opposite Gramercy Park. This club, which is operated with funds supplied by the Union League Club, is known as the Union League Club Unit.

The buildings of the War Camp Community Service range in size from the twelve story hotel in Twenty-seventh street to one or two story structures which have all their activities on the one floor. Yet without exception these buildings receive all their electrical supply from the mains of The New York Edison Company. In the hotel, current is used not only for lighting but for the operation of the elevators and pumps. At Unit No 2, a printing plant is run by electric motor. This plant prints the daily menu, and as many men in the French service frequent the dining room, it is necessary to print the cards in both English and French. At the other buildings the principal use of current is for lighting.

### Increasing Economies of Electric Truck Operation

**N**O well-managed business, no matter how affluent it may be, can afford to continue inefficient and expensive methods when better and more economical methods are at hand. And if this is true of the well-to-do concern it is still more

true of an organized charity, which depends to a large extent on public contributions for the means of continuing. And this is the principal reason why the Charity Organization Society is using two electric trucks and only five horses in the delivery of kindling wood instead of from twelve to fifteen horses.

The electrics, the first of which was installed in 1912, have from the start shown themselves to be far less expensive to operate. In fact it was the economies of the first electric that led to the purchase of a second, for the storage battery vehicle could deliver eight cords a day at a total cost of \$12.73, while it took two two-horse teams, costing \$18.00 a day to do the same work. That saving of \$5.27 is the reason why the second electric was bought the following year.

During the year ending September 30, 1917, these two electrics between them delivered 2,663½ of the 3,540½ cords of kindling that went out of the West 28th street yard of the Society. The total operating cost of the two vehicles for the year was \$5,491.80, or an average of \$2.02 per cord. The five horses in the service of the yard delivered only 877 cords, at a total expense of \$4,904.74, or an average of \$5.59 per cord. The figures are based on an all-year-round service, which in part accounts for the big difference. It must be remembered that there is a very limited demand for fire-wood during the summer months, and it is during this period that motor trucks result in a great saving, for while the electrics stand idle with no mounting expense, other than overhead, the horses must be



## The Edison Monthly

fed every day whether they work or not. And during the summer, they don't work.

The vehicles, built by the Lansden Company, are of three-and-one-half tons capacity each, and are equipped with bodies designed especially for

also operates a laundry, and here, too, the electric is proving a big factor in the daily deliveries. A 2,000-pound vehicle, built by the General Vehicle Company, handles practically all the work, covering twenty-five miles a day at an operating expense of only \$7.35.



*Photographic Bureau of The New York Edison Company*

One of the Two Electric Trucks Serving the Wood-yard of the Charity Organization Society

the peculiar requirements of split-wood delivery. The bodies are of open construction, with partitions which make it possible to divide the load into four half-cords. Swinging gates at the side permit curb unloading without the need of backing into the gutter.

During the past winter, when the demand for wood was exceeded only by the demand for coal, the trucks were at it day and night as long as the wood supply lasted. Yet during cold and snow they never missed a trip.

The Charity Organization Society

### Coffee Milling—Old Style

IN the article appearing under this heading in THE EDISON MONTHLY for April, history somehow failed to repeat itself. That is to say, the historian unwittingly became the instrument of misleading data on a primitive ox-power device used for hulling green coffee. The contrivance as a result was said to be doing duty as a grinding machine. THE EDISON MONTHLY is indebted to The Spice Mill Publishing Company for this important correction.



## Motor Cigarreras

THE smoker of the popular "Little Cigar," soldier or civilian, is aware in a general way of its immense production. But neither he nor anyone else outside the industry realizes that electric machines are turning out at present 1200 of these smokes each per hour.

While figures for the metropolitan district are not available, the country's output of these five-minute puffs—due to scientific methods—amounted last year to over a billion. The cigarette, another electrically made product, is still nine billion in the lead. However, converts to the "Little Cigar" are on the increase; in other words, smokers with a cigar appetite but lacking perhaps the time for the longer smoke, are coming in growing numbers to find a never failing

solace in the short all-tobacco cigar.

If the reader has happened in upon the big-cigar industry in the West Indies or Florida, he has noted a prevalence of hand labor, though certain grades are handled in part by machine. But while machine work on large cigars is by no means considered the equal of finger work, the opposite has been found true of the "Little" article. In fact, not even the dainty fingers of the most dainty *cigarrera* are able to roll these diminutive parcels of leaf as well as a machine.

With much of this experience to draw upon, the C. Lorillard Company has opened a "Little Cigar" plant in East 144th street, with a complete equipment of electrical machines of the most recent model.



*Photographic Bureau of The New York Edison Company*

Latest Type Electric Cigar Machines in the Lorillard Factory



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**Electric Stripping Machines Remove the Leaf Stalks at Lightning Speed**

The tobacco comes to its doors, not from the West Indies, but in wooden packing boxes straight from Connecticut. Moistening and stripping the leaf for the covers from the stems is partly a machine process, though the extent and time of moistening depends on the judgment of a tobacco expert. When the leaf texture is just the right consistency it is fed piece by piece into a motor driven device where the stem is removed. The leaf itself comes out without a flaw.

The cigar machines are in a separate loft, and although forty of them are in constant use, a ten horsepower motor is enough for the lot.

All the operator has to do is to spread the wrapper, piece after piece, across a perforated brass plate at one end of the apparatus. Strong suction working through the perforations holds the wrapper in place until an arm swings back having at its end

and just above the wrapper plate a second suction surface. With this in position the suction of the first is shut off automatically while the wrapper, now transferred, is swung in contact with a travelling pasting tape. This pasting takes but a second and the wrapper is shifted again, this time to a stationary plate under the end of a chute leading from a filler container.

The process really starts with the releasing of just the right quantity of filler which slides down the chute and on the waiting and pasted wrapper. Without more ado a three inch wooden roller bundles the mass into a semi-circular groove at the end of the plate where the cigar shape is accomplished. An automatic push from somewhere in the internals of the machine shoves the rolled product ahead a few inches to find itself with its ragged ends between two knives. These give the finishing touch and the completed cigar comes out perfect.



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

The Ten-Story Building of the Schlegel Investing Company at Second Avenue and Twenty-second Street Abandoned Its Generating Plant Last April in Favor of Central Station Service

## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

Generating Plant Supplying the 2,500 Lights in the Central Syndicate Building at 320 Broadway Has  
Been Displaced by Service from the Mains of The New York Edison Company







"Riley's," at Seventh and Greenwich Avenues

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"At Your Service"



## THE NEW YORK EDISON COMPANY

GENERAL OFFICES: IRVING PLACE & 15th STREET

TELEPHONE STUYVESANT 5600

BRANCH OFFICES	TELEPHONE	BRANCH OFFICES	TELEPHONE
424 Broadway	Canal 8600	151 East 86th Street	Lenox 7780
126 Delancey Street	Orchard 1960	15 East 125th Street	Harlem 4020
10 Irving Place	Stuyvesant 5600	362 East 149th Street	Melrose 9900
*124 West 42d St	Bryant 5262	*Open until midnight	

*Emergency Night and Sunday Call—Farragut 3000*

### TERRITORY SERVED BY THE VARIOUS SUPPLY OFFICES

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Streets, west of the Bowery and south of Catharine Street

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Comment upon the inspiring war resolution of the National Electric Light Association pledging "all that we have and all that we are, to the holy cause" would indeed be superfluous. The resolution, adopted at the annual convention of the Association on June 13-14, and printed on the opposite page, carries its own message in unmistakable terms.

It may be proper, however, to point out that the resolution voices the sentiment of every large central station company in this country, properties whose invested capital exceeds three billion dollars, and whose power plants as sources of electric energy are carrying a large part of the burden of war equipment production.

Having already contributed largely in men and service, the industry pledges itself as ready "cheerfully to submit to such further restrictions of personal and corporate activities, and to such further burdens upon private and corporate property and business, as it may be found necessary to impose upon the people and industries of the country."



The attitude of its women toward war is an accurate index of the attitude of the country as a whole. With

women performing their less spectacular, but no less important, parts with whole-hearted devotion and enthusiasm, there can be no doubt of the manner in which the men are carrying on their grimmer tasks.

How whole-heartedly the women of America are behind the war was impressively shown in the great Red Cross parade on May 18, when upwards of fifty thousand women marched.

There were companies of army and navy nurses, nurses from the city hospitals, settlement workers and student nurses. There were women who are serving their country as drivers of automobiles, women artists who are studying the mysteries of camouflage, women chemists, and the women of industry who are releasing men for the army.

Another division, and by far the largest, was that of the Red Cross Auxiliaries. Clad in white, wearing flowing veils bearing the cross of mercy, these were the women—volunteer workers, every one—whose faithful service since the country entered the war has made possible the tremendous quantities of medical and surgical supplies which have been going steadily to Europe.

A brief review of the work they are doing is given in an article published elsewhere in this issue. The article tells something of the part electricity is playing in the work; it is nevertheless a fact that regardless of electricity or any other mechanical labor saver, the tremendous accomplishments of these various auxiliaries would not be possible but for the faithfulness of the women who labor in the various work-rooms at the end of their regular business day.

## The Edison Monthly

### "All That We Have"

**Resolved,** That the National Electric Light Association, in annual convention assembled, desires to extend to the President of the United States and all others in authority, the assurance that in its organization and its membership it is in thorough accord with the fixed determination of the American people and their chosen representatives to prosecute the war with the utmost vigor and to a victorious conclusion—however long it may take and however much it may cost in men, money and other forms of sacrifice.

The goal we seek through the prosecution of the war, is the winning of a great peace—a peace so well established that it cannot lightly be disturbed by autocratic force, wedded to the doctrine that might makes right. For such an end of the war we are ready, cheerfully, to submit to such further restrictions of personal and corporate activities and to such further burdens upon private and corporate property and business as it may be found necessary to impose upon the people and industries of the country.

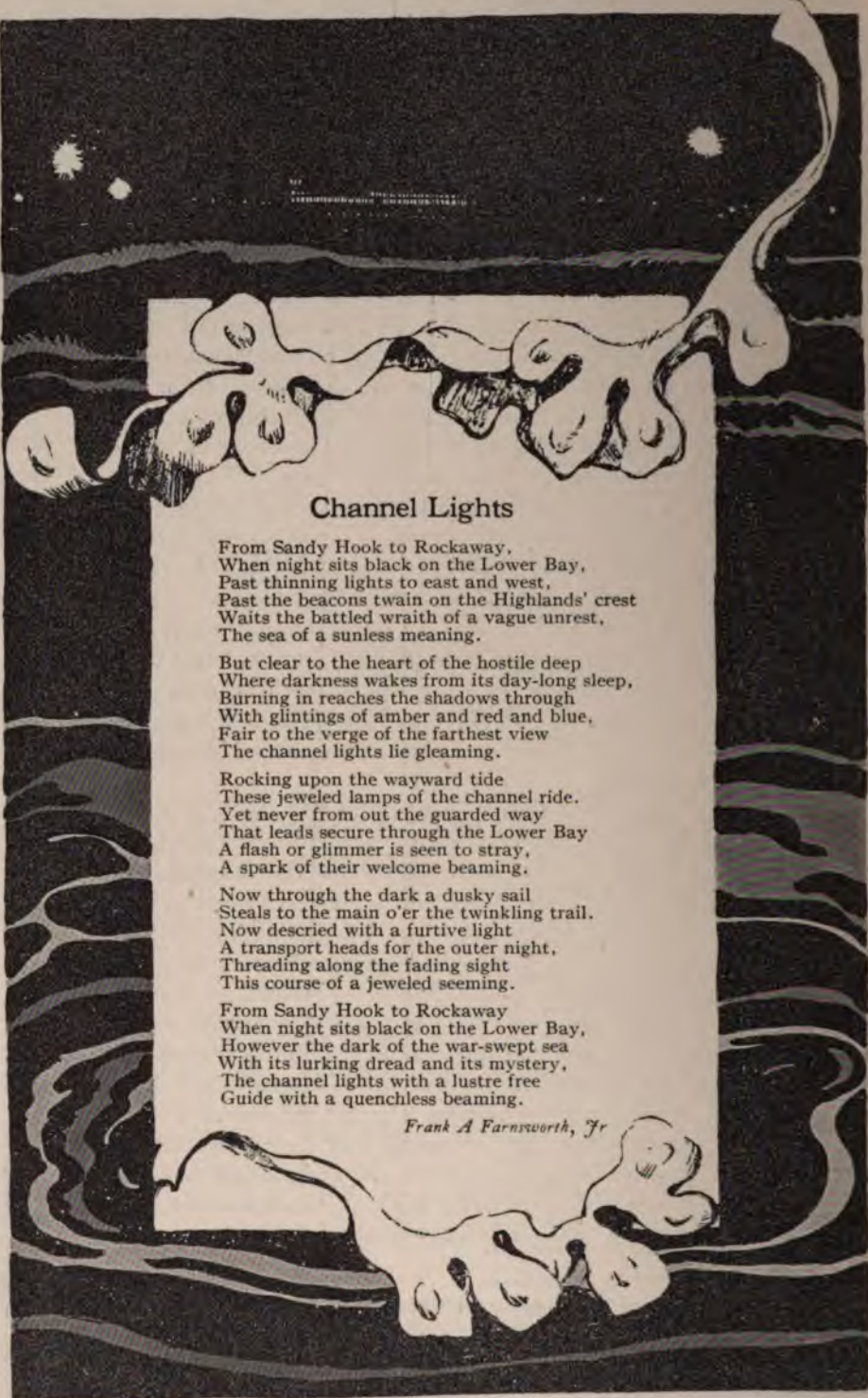
We recognize as the one great menace of the future the possibility of an inconclusive peace—an armed truce which would inevitably end in a renewal of the unspeakable horrors of the present war. That must not be, and the only way to prevent it is to carry this war to VICTORY—a victory so complete and overwhelming that the forces of evil will be glad to accept such terms as an outraged world may be willing in justice to accord. No compromise, no half-way measures, no patched-up "scraps of papers" can accomplish this great end; but only devotion, the patience, the self-sacrifice and the undying patriotism of our people and their great Allies.

With a realizing sense of the stupendous sacrifices involved, but with an abiding faith in the ultimate result, we pledge all that we have and all that we are to the holy cause."

War Resolution Adopted by the National Electric Light Association  
at the Annual Meeting at Atlantic City, June 13-14, 1918



## The Edison Monthly



### Channel Lights

From Sandy Hook to Rockaway,  
When night sits black on the Lower Bay,  
Past thinning lights to east and west,  
Past the beacons twain on the Highlands' crest  
Waits the battled wraith of a vague unrest,  
The sea of a sunless meaning.

But clear to the heart of the hostile deep  
Where darkness wakes from its day-long sleep,  
Burning in reaches the shadows through  
With glintings of amber and red and blue,  
Fair to the verge of the farthest view  
The channel lights lie gleaming.

Rocking upon the wayward tide  
These jeweled lamps of the channel ride.  
Yet never from out the guarded way  
That leads secure through the Lower Bay  
A flash or glimmer is seen to stray,  
A spark of their welcome beaming.

Now through the dark a dusky sail  
Steals to the main o'er the twinkling trail.  
Now descried with a furtive light  
A transport heads for the outer night,  
Threading along the fading sight  
This course of a jeweled seeming.

From Sandy Hook to Rockaway  
When night sits black on the Lower Bay,  
However the dark of the war-swept sea  
With its lurking dread and its mystery,  
The channel lights with a lustre free  
Guide with a quenchless beaming.

*Frank A Farnsworth, Jr*

# An Academic Revival

THE opening last October of evening classes in the Commerce Building at East Twenty-third street and Lexington avenue recalls the fact that the old red brick building was until a few years ago the home of the College of the City of New York, now at St Nicholas avenue and 139th street. The present evening classes in fact are a branch of the college. In addition to this, a portion of the old building is soon to be used as a municipal museum, while another part is to be utilized as a city kitchen. Neither of these, however, will have any connection with the evening school. In these various educational activities, Edison current, to the extent of some 18 kilowatts, is used.

In January, 1849, when the population of New York City numbered hardly more than 500,000, and Manhattan was dotted here and there by villages, the new college was opened. Its size and architectural beauty attracted as much attention and created quite as much comment then, as does the erection of one of the city's present day massive sky-scrapers. Not that the structure can in any way be compared to the towering buildings of today,—it is only four stories high,—but from its roof in those days one could command an unobstructed view for many miles over the surrounding open country. The nearest settlements were Greenwich Village, below Washington Square, and Chelsea to the west. Yorkville, uptown, with its scattering of homes, was remote from the college.

Originally the school was known as The New York Free Academy. In 1858 the institution was given collegiate standing and eight years later it became the College of the City of New York.

It was largely through the efforts of Townsend Harris, merchant prince of New York, who was the first ambassador of the United States to Japan, that the Legislature was induced to authorize the establishment of the Free Academy, embracing college, high school and technical school courses. In May, 1847, the act providing for the establishment of the institution was passed.

The plot of ground at Lexington avenue and Twenty-third street, measuring 120' x 75', was purchased for \$25,000.00. The selection of the site called forth considerable objection, many being of the opinion that it was too far uptown. The construction of the academy was begun in the latter part of 1847, and the work was completed by January, 1849.

## *Designed by Remwick*

Remwick, the famous American architect, designed the building. Two latter day examples of his extraordinary ability are the Smithsonian Institution in Washington and St Patrick's Cathedral. The architecture is of the Flemish-Gothic style, the general design being similar to the cloth houses and city halls found in many towns in the Flemish country, before the Hun invasions.

Originally the entire building was



## The Edison Monthly

covered by a layer of cream-colored stucco on the red brick, and it was conceded to be one of the handsomest structures in New York. Some years later the stucco was removed, revealing the red brick, and thus it remains, presenting a rather unusual but picturesque sight in that busy locality.

A large open lot, on the site now occupied by Madison Square Garden, served as an athletic field for the students. It was there the young men attained their physical development, and many exciting and hard-fought contests were held on the spot. Swimming in the East River was a



*Photographic Bureau of The New York Edison Company*

The Old Home of the College of the City of New York, Now Used as an Evening High School, is Supplied with Current for Lighting by The New York Edison Company

Many used to refer to the college as "the ivy-clad building" because ivy covered almost the entire structure, the spreading evergreen having been grown in honor of Horace Webster, first president of the institution and his successor, General Alexander S. Webb, both of whom were West Pointers. The ivy, however, had to go when the stucco began to chip off.

recreation which many of the students enjoyed. As for general sports, they hadn't in those early days attained the prominence they now enjoy.

Though the structure had only four stories it was much loftier than most four-story buildings, for the rooms were spacious and the ceilings unusually high. When the building was constructed there were eight



## The Edison Monthly

rooms on each floor. Certain changes in the college, however, necessitated the division of some of the rooms, partitions being installed. The chapel occupied the upper floor, and this, too, eventually had to be partitioned off for classes.

Coal stoves were used for heating the building in the early days, a fact which explains the ornamental towers which characterize the building. In each classroom was a stove, the smoke from which was emitted from a flue contained in each of the towers.

Finally the college outgrew the building and the various annexes which had been acquired in the neighborhood, and eventually the city erected the new and handsome group of buildings which now overlook St Nicholas Park.

During the past year a number of changes have been made in the old building in order to provide for its new uses. The partitions, constructed some years ago to decrease the original size of the classrooms, have been removed and alterations are soon to be made in the westerly part of the basement to provide space for a municipal museum.

The museum display is to consist of models of fire boats, fire engines and other apparatus used by the various departments of the City. Demonstrations of the signal system used in the Police Department are to be given, and budget figures from the Controller's Office are to be placed on exhibition so that the public will have an opportunity of knowing exactly how the City's money is being expended by the different departments. All of the exhibits and information to be had at the museum will be of im-

mediate interest to the citizen of New York, and the intention is to conduct it on an absolutely non-partisan basis.

The easterly part of the basement is now being used as a City Kitchen and is in charge of the Mayor's Committee, so that the building, a sort of grandfather to the many newer structures in the immediate vicinity, in its old age is continuing to be a place of attraction and interest. The public will be given an opportunity of learning the proper method of cooking, and the great lessons which the war is teaching the country of conserving food will be explained.

The high school, a preparatory school for the college, is directed by Dr Frederick B Robinson who has charge of 4,000 students.

### Outfitting an Army with Thrift Stamps

One Thrift Stamp buys one waist belt or one hat cord, two pairs of shoe-laces and four identification tags.

Two Thrift Stamps buy one trench tool.

Three Thrift Stamps buy one pair of woolen gloves.

Four Thrift Stamps buy one bedsack, and 11 cents over, or one pair of canvas leggings.

Five Thrift Stamps buy one bayonet scabbard.

Six Thrift Stamps buy a summer undershirt or woolen stockings.

Seven Thrift Stamps buy a service hat.

Eight Thrift Stamps leave 15 cents lacking to buy a bayonet;

Twelve Thrift Stamps buy a shelter tent or one steel helmet.

Fourteen Thrift Stamps buy a poncho.

Fifteen Thrift Stamps buy a winter undershirt or undergarments.

One War Savings Stamp buys a cartridge belt.

One War Savings and four Thrift Stamps buy 100 cartridges.

Two War Savings Stamps buy a woolen shirt or O. D. breeches.

Three War Savings Stamps buy two pairs of shoes or a gas mask.

Four War Savings Stamps buy O. D. coats or woolen blankets.

Five War Savings Stamps buy a rifle.

Thirty-eight War Savings Stamps equip a soldier completely.



# Water Wagons-Electric

FOR the horses, it was an inauspicious day back in 1912 when the Hygeia Distilled Water Company bought its first electric truck. True, the purchase was principally for experimental purposes, for electrics were not very well established at that time in the business of delivering table waters, and the Hygeia management was more than half skeptical. As for the horses, they had been at it for years—ever since the company began business thirty years ago. They were twenty-seven teams strong, and anyway what was one new-fangled contraption that had to have some one turn a wheel every time it wanted to move?

And while the fifty-four horses looked on with more or less equine disdain, the solitary electric went steadily at it. By and by there

came another electric. But this time there were only forty-odd animals to voice their disgust at modern ways. And so it has been from 1912 to the present—steadily decreasing numbers of horses and a constantly increasing fleet of electric trucks, until now there are ten storage battery vehicles of various types and sizes and only one team of horses. Yet the ten do all the work, and more, too, of the fifty animals they have displaced.

This pioneer electric, which by the way is still in service, showed many advantages over the horse drawn equipment. The difference in operating cost was, of course, the most striking factor, but added to this was the fact that the automobile could go to places far beyond the reach of horses. These two,—increased service and lowered costs,—



*Photographic Bureau of The New York Edison Company*

Part of the Fleet of Electric Trucks in the Service of the Hygeia Distilled Water Company. Not Only Have They Increased the Delivery Radius of the Company but They Have Displaced Twenty-one Teams of Horses



## The Edison Monthly

are the real reasons for the fact that the company's water products—Vinaris, Hyavaco and Hygeia, are now delivered by storage battery vehicles.

The delivery system today covers all of Manhattan, the Bronx and Brooklyn. The electric trucks reach customers in all three boroughs. Beyond these districts, express and freight are relied upon. In the days of horses, the wagons did not go beyond Manhattan. The trips were too long. Even a trip to Harlem taxed the horses to the utmost, and they required the better part of a day for the journey. These outlying parts of the city depended on express for their shipments. Now the whole local territory is covered by the wagons of the company, and the service is not only better but more economical.

The electric truck fleet of the Hygeia Company is made up of four three and one-half ton trucks, one three-ton truck, three two-ton trucks, one one-ton truck and one 1000-pound wagon. Nine of the machines were built by the General Vehicle Company, and one by the General Motors Company.

The cars are garaged in the building at 420 East 53rd Street that formerly served as a stable. Current for charging the batteries as well as for the operation of the bottling works proper is supplied from the mains of The New York Edison Company.

### "Submarines" in a New Light

A NOTABLE use of the electric search light for submarine purposes has been made by a tourist company in connection with the famous "Submarine Gardens"

situated just off the shores of Santa Catalina Island, California.

As usual in such cases, the boats in which tourists are taken out to view the "Gardens" are fitted with glass bottoms. However, and in addition to the equipment familiar to sight-seers in Bermuda waters, these California boats carry strong search lights for use on special night excursions. These lights, aided by powerful reflectors, bring out the curious submarine vegetation in brilliant reliefs, while the waters round about are thronged by infinite varieties of fish which are attracted by the light. Needless to say, the effects both in color and form are considerably more of interest than those obtained by daylight.

### Search Light Ranges

A RECENT article in "The Electrical World" by Lieut L G Hibben, gives the following, among other interesting particulars, of the range of electric search lights.

As a general thing it is not practicable, owing to atmospheric absorption, to work at ranges exceeding 6000 yards. Yet cases are on record in which ships have been distinguished at a distance of nine miles. On slightly misty nights, the glare of distant beams can be seen in the sky at still greater distances. With a 60-inch mirror, and an arc operating at 20,000 watts, the ranges to which gray and medium light targets can be satisfactorily illuminated are: Very clear atmospheres, 10,000 yards (or more). Average atmospheres, 6,000 to 8,000 yards. Slight haze or rain, 3,000 to 4,000 yards. Fog or early dawn, 1,000 to 2,000 yards.



# Carving Under Pressure

ELECTRICITY as a factor in manufacturing is generally thought of as the Power Behind—way behind as far as direct and delicate handling is concerned. It is pictured driving great machines, lift-

carving could possibly come from.

While there are several sources, one at least—and an electrical one—is found shaping and pruning away in West Thirteenth street. If curiosity asks further, the name on the face of



*Photographic Bureau of The New York Edison Company*

Motor-Driven Machines in the Newcomb Factory are Now Operated with Central Station Current

ing, pounding, grinding, carrying huge loads from point to point, but seldom as dealing with fine and ticklish details.

The reader, like the rest of confiding humanity, has marvelled perhaps at the amount of wood carving that shows today on portrait frames, mirror frames, lamp standards, mouldings, and all this gilded orgy of foils and curlicues. Without doubting its genuineness for a moment, the average mortal has wondered where in the world so much and so excellent

the big five story building is the "Newcomb Manufacturing Company."

Though knives, broad bladed affairs a foot long, have something to do with it, the "carving" in this case is done on an upper floor to the tune of the hissing of motor driven air compressors. That is to say, the wealth of delicate detail that is made here, later to be mounted on wood, is formed under pressure in wooden moulds. The substance itself is a secret mixture closely resembling

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*Photographic Bureau of The New York Edison Company*  
Where the Compressed Air Comes From

putty in color and consistency. A liberal lump is placed in a mould and the whole is set on the pan of one of the presses. In a moment down comes the upper pan with some thousand pounds force, and when the pressure is released and the composition freed, there are your curls and rosettes as natural as life.

The knives spoken of shave these carvings from their pasty background as they are needed, and skilled fingers fit them foil by foil to the woodwork awaiting them. A little gluing, a little more shaping, and the moulding is "carved" to the sum of artistic completeness. Some actual carving — and very fine work, too — is produced here, yet by far the most is accomplished in the

manner described. A coating of gold leaf, when the parts are dry, concludes the realism.

So much for what may be called the finishing touches. But frames and lamp stands and brackets must be made to attach these to. For this work—cabinet work of the highest order—electric machines: planers, saws, and polishers, have been provided. In fact, so thorough is the equipment that little of this sort of thing has to be done by hand. Thanks to this fact, reproductions of every sort, together with modern designs equally intricate, are turned out perfect in detail and in record time.

To find here great piles and sheafs of moulding, crude or finished, is to



*Photographic Bureau of The New York Edison Company*  
A Corner in the Newcomb Display Rooms



## The Edison Monthly

question the prevailing idea that lumber of the high class required for cabinet work is hard to get. All varieties, in fact, from the native oak and walnut to the imported mahogany and rosewood are seen here, clear of grain and innocent of blemish. However, the pick of the lumber yards which has been the boast of the Newcomb shops for years is becoming more and more a scanty proposition, and the material secured represents today a painstaking search that no doubt would have taxed the patience of the founders of the business.

The fact of scarcity of first-class material emphasizes to a growing extent the need of working methods that will make use of what is available with a minimum of waste. And of course it is right here that the electric machines met with at every turn in these lofts are doing invaluable service. They economize labor to great degree, it is true. What is more to the point, they are economizing to a still greater degree the material that makes the continuance of such labor possible. Under their handling, errors of line are all but improbable, and accidental splits and cracks are largely eliminated.

These machines apply further in the rapid output that has become necessary to the business. They have to work fast here, for architects and interior decorators have for years depended on the Newcomb shops to



*Photographic Bureau of The New York Edison Company*

Admirin' of His "Handiwork"—An Urn Fresh from the Cast

work out their ideas. It was this condition, and a growing condition, that determined the management some little time since to use Edison Service. The plant in the basement, though still in good order, could not produce the service the business warranted. This plant today has been dismantled, and an Edison service board tells the story.

# An Electrified Red Cross

FROM December first up to the first of this past month, the New York County Chapter of the Red Cross made and shipped abroad 6,029,100 surgical dressings, 83,337 hospital garments, and 143,338 knitted garments. These figures would do credit to an organized industry. As everyone knows, however, Red Cross labor is volunteer labor, and the work accomplished has been done by women who have been able to snatch two or three hours a day, seldom more, from their household duties. Apart from the signal devotion of these workers, to whom too much credit cannot be given, there is one explanation, and only one, of this remarkable output. That is the use of electric cutters, knitting machines, sewing machines, and other

motor-driven labor-saving devices.

A typical installation of this sort is doing yeoman's work at the big Volunteer Hospital Garment Work Room at Bloomingdale's. The auxiliary, made up of approximately 1100 members, was given the use of an entire loft by this firm shortly after organizing. A high degree of efficiency is obtained due to the fact that work is conducted on a pledge basis, which requires a member in case of absence to pay a 50 cent "privilege," which in turn is used to provide a substitute. The skill these amateurs have acquired in handling the machines is seen in the production record, still maintained in spite of a considerable falling off in membership, owing to many workers leaving for their country homes. From 1200 to 1300 gar-



*Photographic Bureau of The New York Edison Company*

Without the Electric Sewing Machine the Red Cross Volunteer Output Would Be Seriously Restricted



## The Edison Monthly

ments are made here weekly—pajamas, hospital shirts, and flannel underwear making up the bulk of the output.

In all, sixty electric sewing machines are in use, divided among groups of operators each of which is under the direction of a captain. Such is the system that at the start of the day the various captains get their quotas of material from the stock-room, where the finished garments are handed in again at the close of the day. The work is thereupon counted, inspected with great care, and packed by a lately installed electric baling machine. The baling of the goods made possible by this means has been found to save not only a great amount of time but an actual \$12.00 in each instance in transport charges over what formerly was the cost of sending the same weight in wood cases. No surer evidence of the quality of work done by this auxiliary could be found than the fact that its output is shipped from its hands direct to France without further inspection of

any kind at Red Cross headquarters.

The superintendent, on being asked as to the value of motor sewing machines, exclaimed, "Why, we would have failed without them. I mean to say that we would not have been able to turn out more than a small fraction of what we are doing at present. That is because most of us could not have worked nearly as long or as steadily with foot power machines as we do now with these easy running electric machines. I think I can say that we are at least three times more efficient because of them."

The Model Work Room at 20 East Thirty-eighth street illustrates the usefulness of electric devices still more strikingly. Not only motor sewing machines but current driven cutters and knitting machines of several sorts are seen at work here.

These cutters have been found capable of handling at the one time 300 thicknesses of gauze or 200 thicknesses of muslin. In other words, as much and as accurate cutting can be done in this way in four minutes as



*Photographic Bureau of The New York Edison Company*

The Electric Cutter Handles Two Hundred Thicknesses of Gauze as Easily as One



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*Photographic Bureau of The New York Edison Company*

**This Pattern-Making Device is a Great Time Saver**

could be done in two hours of the old fashioned laying-out and stretching. Furthermore, the machines are so simple to operate that anyone, even children, can handle them.

Thanks to such efficient helps at the start of the process, together with a big battery of electric sewing machines, the 340 workers who busy themselves here on the average day were able to make 421,458 surgical dressings during March, a figure that was increased to over 450,000 during April. Hour records for the individual show such unbelievable figures as 350 of the 4 x 4 compresses, and again 290 of the common 2 x 2 wipes.

A knitting department on another floor shows not only women but numbers of men operating sweater and sock machines. And judging from what of the April output still remained in storage cabinets, both the machines and their operators are to be congratulated. While April figures were not available at the moment, it was said that during the four weeks previous 915 pairs of socks and 155 sweaters were produced.

Such an accomplishment, which seemed surprising at first, did not sound so much so when it was pointed out that a single one of the sweater machines knits one of these garments in 30 minutes, a piece of work requiring several days work by hand. Likewise, one of the 20-sock machines now installed knits a sock in one hour where a day would be required to do it by hand.

The Garment Cutting Department for the whole Atlantic Division is at 20 East Fifteenth street, and naturally it is here that electric cutting devices are used in an especially big way. In fact, the standardized parts for refugee and hospital garments are cut here and sent to the great majority of the branches coming under this head.

Huge ninety-foot tables are employed in this work, which is begun by a newly adopted electric tracing apparatus. The principle of the thing is the forming of thickly perforated lines on paper suited to the purpose. These sheets with the perforated



*Photographic Bureau of The New York Edison Company*

**Winding Yarn for Use on the Motor-Driven  
Knitting Machines**



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patterns are next laid on the cloth to be cut, and fine powder is dusted over them reproducing the lines on the cloth.

The cutting devices come then into play, and 216 thicknesses of material, representing 144 dozen garments are cut at the one time. Twenty minutes suffices for this work, which, if done in the old way, would require from four to five hours. The extent of the work done here is seen in the fact that seven of these electric cutters are kept continually at it.

Such, in a word, is the work of the Red Cross in New York City and vicinity. Some branches employ more electrical apparatus, some less, as circumstances determine. Everywhere however, current, Edison current, is playing a part, and a most important part, in this invaluable service.

### Electric Empire

**I**N the electrician a new master has conquered the world, and with weapons so strong and cleaving that he brings every art and industry to harvests not to be imagined a century ago. He gives us the motive-power for every task in the phase, which may at once, and fully, pass into any other. A touch, and electricity gives us light as brilliant as sunshine. Another touch, and intensest heat throbs in the core of a crucible. Yet another touch, and we direct a chemical parting, as in dividing copper from its compounds; or we effect a union equally desirable, as in building from air the nitrates to enrich our farms and gardens. Oftener still, we wish the swift rotation of a massive wheel, such as at headquart-

ers generated our current itself. We ply a switch and our desire becomes enacted law.

Since men first trod this world they have rejoiced in light to guide their hands and feet, to reveal form and color, and, infinitely beyond the swing of hand or arm, to display the stars of heaven. The electrician takes the twin of light, every whit as rapid, and happily absolved from its rule of running only in straight lines. He commits electricity to a wire, of as many zigzags as he pleases, and, paying little toll for a jaunt of two hundred miles, he bids it shine in our lamps, glow in our ovens, and in chemistry serve us either as a trowel or a sword. Electricity carries our burdens indoors and out. It impels as readily the monster loom of a cotton-mill, as the sewing-machine of a lady at home. More audacious still, the electrician throws pulses into free space, and forthwith this globe becomes his whispering gallery. Other pulses, urged by another chord, pierce the flesh and blood of this man himself, and portray his very bones.

From long before the dawn of history the flame-kindler was the commander of human toil, and for ages every stride in civilization but confirmed his supremacy. Yet during the past sixty years that supremacy has ended for good and all, and we see that the flame-user but paved the way for bolder feats and deeper insights than were to him possible. Electricity to-day does all that fire ever did, does it better, and then accomplishes tasks infinitely beyond the scope of fire, however skillfully applied.—*From an address by George H. Hackley, at Hackley School, on Edison Day, 1917.*

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*Times Photo Service*

The Thousands of Women, of the Schools, Churches, Clubs, Offices, Factories and Other Organizations, Whose Volunteer Labors Have Made Possible the Tremendous Output of Red Cross Supplies, Made the Auxiliary Division the Most Striking Feature of the Big Parade of May Eighteenth. Auxiliary No 3, Composed of Lighting Company Employees is Seen Passing the Reviewing Stand



C.V.





150 West 19th Street

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"At Your Service"



## THE NEW YORK EDISON COMPANY

GENERAL OFFICES: IRVING PLACE @ 15th STREET

TELEPHONE STUYVESANT 5600

BRANCH OFFICES	TELEPHONE	BRANCH OFFICES	TELEPHONE
424 Broadway	Canal 8600	151 East 86th Street	Lenox 7780
126 Delancey Street	Orchard 1960	15 East 125th Street	Harlem 4020
10 Irving Place	Stuyvesant 5600	362 East 149th Street	Melrose 9900
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All showrooms open until midnight

*Emergency Night and Sunday Call—Farragut 3000*

### TERRITORY SERVED BY THE VARIOUS SUPPLY OFFICES

Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Streets, west of the Bowery and south of Catharine Street

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



## The Edison Monthly

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N F BRADY, President  
JOSEPH WILLIAMS, Treasurer  
LEWIS B GAWTRY, Secretary

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The claim that the electric truck is the ideal vehicle for city service is readily granted by those who have made a study of city transportation problems. Proof of the claim, if proof is necessary, is found in the fleets of storage battery vehicles in every class of delivery service in the city.

There are large fleets and small fleets; small fleets of large cars and large fleets of small cars and all sized fleets of all size cars. They do heavy work and light; some work a few hours a day, some are on call twenty-four hours every day; some do clean work and some do dirty work; they deliver food stuffs and jewelry, coal and garbage, explosives and ice, drinking water and time-tables, money and telephones, railway supplies and millinery, dry-goods and electric light equipment,—practically every city necessity makes some part of its journey to the city consumer in an electric vehicle.



Many of these fleets are more than ten years old—one is nearly twenty years old—and in this the fleets prove another thing—the long service that may be expected from vehicles of this type.

There are now nearly twenty-six hundred electric trucks in service in Manhattan, with perhaps an equal number in the other boroughs. In addition to installations of from one to five cars, there are more than forty fleets of ten cars or more, the largest consisting of 345 vehicles. Some of the other fleets in the city are those of B Altman & Company with 21 cars, American Express with 214 cars, Central Brewing Company with 49 cars, Blue Valley Butter Company with 21 cars, Eleto Company with 47 cars, Consolidated Gas Company with 34 cars, Gimbel Brothers with 76 cars, Gorham Company with 17 cars, Hygeia Distilled Water Company with 10 cars, The New York Edison Company with 139 cars, United Dressed Beef Company with 22 cars, United Electric Light and Power Company with 33 cars, Westcott Express Company with 31 cars, and R C Williams and Company with 11 cars.

These large fleets illustrate the extent to which big business concerns depend upon electric trucks for their delivery work. The multitude of smaller fleets and installations of one and two cars illustrates the diversity of interests which are served by the storage battery vehicle.



Even in these days of easy familiarity with sums counted in hundreds of thousands, or even in billions, the statement that the Central Station industry of this country represents an invested capital exceeding three billion dollars establishes the importance of the business. Yet it is not the in-



## The Edison Monthly

vestments, the income from service, nor yet the number of employees that indicate the real war-time importance of this activity. It is the extent to which other industries and war activities are dependent upon it for their light and power that shows what a factor in the winning of the war electricity is.



It has been estimated by the secretary of the National Electric Light Association that no less than sixty per cent of the power used in the manufacture of munitions is electrical—furnished by Central Stations. Camps and cantonments are all lighted electrically, and invariably the current comes from a near-by central power plant.

Perhaps the biggest instance of Central Station supply for the production of war equipment is the Hog Island shipyard on the Delaware. The great plant with its fifty launching ways stretching for miles along the river front, and its innumerable shops and buildings housing the activities incident to ship building, its working force of thirty thousand, its sewage system, its water-supply system, its warehouses and theatres and its several air-compressor plants, is different from most communities of the same size, for it has no electric light plant. Instead, it secures its supply of electrical energy for a connected load of 35,000 kilowatts from the system of The Philadelphia Electric Company. That is one case. Every large Central Station company in the country is also supplying munitions or ship building plants, and while not all the companies can boast Hog Islands on their

lines, they number other works, which though smaller are proportionately as important.



While in every case the companies have been able to furnish and maintain the required service it often happened that unusual problems and unexpected difficulties had to be surmounted. The engineering problems were disposed of in the usual way by the engineers of the companies; but even with these problems out of the way it was not always an easy matter to proceed with the work, for material couldn't always be had for the asking.

The whole story of the part electricity is playing in winning the war may never be told. Some of it will not be told until the war is over. Perhaps electricity isn't to be used to the extent of electrocuting Hun armies—but in other and no less effective ways, as in the case of Hog Island, it will be found to have played a leading part.



Two new electric processes—one used for ironing cracks out of iron pipes, and the other in the manufacture of brass, are described in this issue of the Edison Monthly.

The electric brass furnace is said to offer a better method of making brass, but more than this the patents have been taken out by the Bureau of Mines, and free license for the use of the furnace will be granted on application. The pipe restoring process employs both electric heat and magnetism. It is used in the California oil fields in restoring iron pipes which have become crystallized and is preventing waste, both of oil and of material.



# The Edison Monthly



## The Edison Monthly

### Shadow and Flame

The sunset flares where the pavements blend  
With river and shore at the long street's end  
In a luminous mist of grey.  
Under the walls of our canyons deep  
The Souls of the Past awake from sleep,  
Haunting the pathways their hearts have known,—  
Their dreams are living in steel and stone.  
But we dream on today.

Their keels are dust and their sails are furled  
Who anchored here in the Port of the World,—  
New squadrons challenge their Fate.  
Forgotten storms wrecked their crowding spires,—  
We prison the lightning in weaving wires,  
Our caravans burrow under the earth  
Where the heart and brain that gave us birth  
Dreamed of a mighty State.

Into a city of marvelous mould  
They wrought their souls as they cast their gold,  
They won for us name and fame.  
Shadows are they, but their dreams are stone.  
Woven about them our world has grown.  
Magic, that lurks in our battlement-wall,  
Crowns it with stars when the white stars call,  
Write us our dream—in flame!

*L. Lamprey*





# Building the Commodore

THE war not only is pulling down, as far as Europe is concerned, but it is seriously hindering a good deal of putting up as far as America is concerned. For the past two years the New York public has been gazing into a prodigious hole in the ground just east of the Grand Central Terminal and wondering what was going to fill it. Even now, when a huge structure is beginning to rise, story upon story, above the pavements, its nature and completion both may be matters of conjecture to the passer-by.

This great Hotel Commodore, the latest project of the New York Central Railroad, should as a matter of fact have reared its full height above the street a year ago, and would have done so except for the scarcity of steel. However, now that steel deliveries are available in fair quantities, the work is going ahead as rapidly as possible. In order not only to maintain the utmost speed but to assure the quality of the work itself, Edison Service is being drawn on for all power needs.

This supply which has long since put steam power for important construction enterprises far in the back-



*Photographic Bureau of The New York Edison Company*

A Swing to the Right—Up a Little—Down—Slowly—and the Electric Hoists Fit Each Piece of Steel Exactly into Place

ground, is keeping hoists, derricks, and compressors hard at it with all the assurance of dependable and limitless energy. The giant framework when completed will provide for over 2,000 rooms. This means first that some miles of steel uprights and girders must be hoisted rapidly

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into place. Motors for this work are calling at present for 600 horse power, a substantial increase over what was originally planned for. While the clouds of white vapor that used to rise picturesquely over construction operations of the old sort are absent

be feared, and trouble with water and dirt is wholly removed.

A further 200 horse-power supplies air compressors which in turn are responsible for what sounds like a machine gun bombardment high up in the framework. This fusillade up

"over the top" is, of course, the compressed air hammers, pounding away at the countless rivets to which the structure looks for holding together. In view of the fact that a first class riveter is making in these thriving times a salary that a bank president of a generation ago might have envied, it certainly is desirable from the contractor's standpoint that the rat-a-tat-tat up there at the top of things should go on without pause. With Edison Service to rely upon, not only may the builder be sure of results but the over-alled magnates up above may be certain of a full day's "juice" for a full day's manoeuvres.



*Photographie Bureau of The New York Edison Company*

The Hotel Commodore, on East Forty-second Street, is Being Erected by the George A Fuller Company with the Aid of 1500 Horse-power of Edison Service

here, the big black beams mount up to their places somewhat more reliably and the engineers in charge down at the base of the structure manage away with somewhat more convenience and satisfaction. And with good reason. Breakdowns, that bane of construction experience, need never

Not two or three but six big motor driven concrete-mixers are needed to provide material for floors, arches, and mortar for the brickwork, all of which are proceeding in time with steel construction. Twenty-eight stories, with their multitude of rooms each with bath, lobbies and corridors



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of unusual size, and the largest ball room in the world—all these demand an amount of concrete and allied material scarcely believable.

Though the upward trend of beams and girders is bound to keep considerably in the lead of the outside stone and terra cotta work, this last is moving into place as swiftly as possible. This covering for the greater part is of limestone with a wealth of ornament on the lower seven floors such as arches and pilasters, and an equally elaborate amount of decoration about the cornice stories. At present, five electric derricks are hoisting into place the great blocks of stone, together with the terra cotta for the facades.

While 1600 men will be employed shortly on the structure, a good part of this army is already engaged on the various phases of the work. The fact



*Photographic Bureau of The New York Edison Company*

**Big, Motor-Driven Air Compressors Supply the Power for these Riveters**

that even more will not be required is due to the power supply used, a supply that makes every pair of hands efficient plus, and what is perhaps as important, keeps every man jack confident of results.

This feeling of optimism and reliance is shared by Mr D L Norris, the Fuller Construction Company's chief on the job. Said the chief when asked point blank about this: "We've got about the biggest job of this kind on our hands that was ever tackled. We had to have power we could depend on, for now that material can be had to some extent the thing has got to be rushed ahead to make the most of the chance. Edison Service has done us more than one good turn before. We knew what it was, how it meant no delays, and freedom from leaks and temperature troubles. Our men like it too. Still another big advantage is the fact that we've found it cheaper than using steam. We hope to have the whole thing up now in a few months."



*Photographic Bureau of The New York Edison Company*

**One of the Motor-Driven Hod Hoists which Carries Building Material from the Basement to the Upper Floors**

# A Noteworthy Close-down

**U**NDoubtedly one of the finest properties to come on the Edison Mains within the past few months is the big Hallenbeck-Hungerford Building at 80 Lafayette Street. Sixteen stories high and containing space to the amount of 4,000,000 cubic feet, the structure is beyond question one of the best finished and equipped of the newer high buildings.

A noteworthy feature is its solid construction. Designed originally as a warehouse for the U T Hungerford Brass and Copper Company, the carrying capacity of its lower floors is 400 pounds per square foot, which, tremendous as it is, is necessary to take care of the heavy stocks which are carried. Of particular interest from the Central Station standpoint is the generating plant, which until recently had supplied the property since its opening three years ago. This plant, which is one of the most efficient obtainable, consists of one 100 kw and two 300 kw generators each direct connected to a Hamilton-Corliss engine. Two balancer sets were used to adapt the 240-volt service to the 3-wire lighting system. The boiler installation comprises four 300 h p. Worthington water tube units using natural draft. All auxiliaries, with the exception of boiler feed and oil pumps, are arranged for motor drive. Besides the generator engines, live steam has been required only for the feed pumps and for industrial purposes for four of the tenants. This steam for industrial

use is supplied through a two inch riser.

The closing down of a generating plant of this size and description may cause some surprise, and in fact, from the viewpoint of a few months since, it can be said rather to have surprised the owners themselves. At that time the plant was functioning as efficiently as during the previous three years of its existence, and while the question of supplies was tightening up, no serious difficulty had been encountered. In the interim, however, this supply question became more and more difficult. In a word, the installation like scores of others in



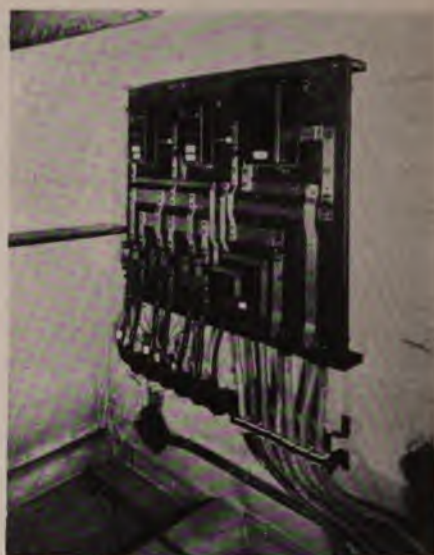
*Photographic Bureau of The New York Edison Company*  
**The Big Hallenbeck-Hungerford Building Now  
Receives Its Electrical Supply from The New York  
Edison Company**



## The Edison Monthly

all parts of the city came gradually to show its inherent defect under emergency pressure as compared with the service of the Central Station. This point should be emphasized as the most telling factor in the spread of Central Station supply in recent times and one which promises to attach important properties to such supply indefinitely. That is to say, big property managements have been brought to see that fair weather measures in so vital a matter as electric service are deceptive at best. The alternative, connection with a supply source which passing conditions cannot affect, is coming rapidly to be regarded as the one solid and progressive solution of the problem.

A further factor of advantage is seen in the contrast between this Hallenbeck-Hungerford plant with its big engines, generators, and other equipment, and the simple service board on the wall close by that marks the entrance of Edison Service. Here is the whole thing, the whole vexing problem of light and power supply, reduced to a mere wall panel



*Photographic Bureau of The New York Edison Company*  
The Service Board at the Hallenbeck-Hungerford Building

from which the necessary cables lead to the street mains outside. Here is no occupying of valuable space by ponderous machinery, no care and worry and expense for the maintenance of a plant, and no uncertainty over a supply that can never be other than unlimited and dependable. It is simplicity face to face with needless complexity,—efficiency raised to the *nth* degree.

The fact that the building is largely occupied by printing concerns, certain of which are among the most important in the city, only emphasizes the need of such electric service as is being provided at present. The Wynkoop-Hallenbeck-Crawford Company fills several floors with as complete a printing equipment as New York can boast. Its



*Photographic Bureau of The New York Edison Company*  
Looking Across One of the Great Wynkoop-Hallenbeck-Crawford Press Rooms



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aim in fact was and is to do finer work in magazine publication and catalogue printing than is usually undertaken. The plant with its ultra modern equipment and facilities is large enough to produce economically and is geared to do what its clients want when they want it. As in every printing establishment of modern pretensions, each press, folder, binder and cutter, is driven by individual motor. This is to insure not only a service independent of possible breakdowns and accidents on other parts of the floor, but to provide for the wholly independent operation of the machine in question irrespective of speed or any other factor of operation on the part of neighboring apparatus. The elimination of any chance of accident to operators is further assured by this arrangement.

Nearby floors house the well known Periodical Press, well known, that is, to patrons whose jobs number enough millions of impressions to interest this great establishment. On such a scale

are the Periodical presses and other devices designed that undertakings of small or moderate proportions cannot be considered. It is, instead, magazines like McCall's and the People's Home Journal, whose issues run into really great figures, together with big catalogue and mail order jobs, that find themselves at home on these presses; and it must be admitted that the policy has been successful. Nowhere else in the city, perhaps, is a plant kept so continually at it and the efficiency of power supply more thoroughly tested. What would happen in the case even of a brief breakdown in this service can be imagined by any one at all familiar with present printing conditions. This possibility has, of course, been removed by the present power supply arrangement with the Central Station.

While the U T Hungerford Company, part owner of the building, is not using machinery on these premises, its displays of brass and copper have the advantage of a well-planned

lighting installation in keeping with the nature of the goods shown and the size of this concern's operations. The Hungerford offices are also equipped with up-to-the-minute lighting units appropriate to such work. The remainder of the building space not occupied by the interests already described is taken up by printing concerns which if not as large as their neighbors are every bit as up-to-date in layout and electrical equipment.



*Photographic Bureau of The New York Edison Company*

One of the Ultra-Modern Presses Which Handles the Work of the Periodical Press



## The Edison Monthly

### Electric Brass Furnace Perfected by Bureau of Mines

**A**N electric melting furnace that may revolutionize the making of brass has been perfected by the Bureau of Mines. It is known as the Rocking electric furnace and the patents, which have been taken out by the Bureau, have been assigned to Secretary of the Interior Lane, as trustee. Free license to operate these furnaces under the patents, it is understood, can be obtained by making application through Van H Manning, director of the Bureau of Mines.

The new furnace, which it is claimed will reduce the important losses in brass melting, is the result of five years' experimentation by H W Gillett, chemist of the Bureau of Mines, in co-operation with the laboratory of Cornell University, the American Institute of Metals and a number of manufacturers of brass.

Up to the present most brass has been made in costly crucibles of imported clay and graphite. Since the war it has been impossible to obtain the imported materials for crucibles, and manufacturers have had to put up with crucibles of much poorer quality, and at a cost many times that of pre-war prices. With the huge tonnage of brass needed for war purposes, such as shells for cartridges, manufacturers have been anxious for a solution of the crucible problem. The Bureau states it is inevitable that the next few years will see electric furnaces largely replacing crucible furnaces and that there will be a development comparable to that seen in the steel industry in the last few years. The electric furnace, it is also declared,

will greatly decrease the loss of zinc which, together with copper, makes brass. Zinc boils at a much lower temperature than copper, and there have consequently been large losses in the open-crucible furnace through volatilization of the zinc. The electric furnace is closed and these losses are avoided. It is estimated that the unnecessary losses in brass making are more than \$3,000,000 a year in normal times, and perhaps \$10,000,000 in war times. Another claim for the electric furnace is that it gives more healthful working conditions for the men.

The Michigan Smelting and Refining Company, Detroit, Mich., already has one of these furnaces in operation and has four more under construction. The C B Bohn Foundry Company of Detroit is building two of these furnaces.

### Cracks Ironed Out of Pipes

**I**RONING the cracks out of iron pipe is a new industrial process, and it is as unusual as it sounds. Briefly, it consists of applying heat—electric—and pressure to iron pipes which have become crystallized. This, together with the magnetic forces set up by the passage of the strong currents restores the metal to its former strength and serviceability.

The process, which is described in a recent issue of the *Electrical Review*, is employed by the Bardeen Corporation in the oil fields of California where there has always been a tremendous loss in worn-out piping. Invented by Hugh A Bardeen, it is known as the Bardeen process, and not only is it proving a big factor in saving the pipe itself, but it helps to increase pro-



## The Edison Monthly

duction, for the pipe can be treated before an actual break occurs, thereby saving time and preventing a waste of oil.

The Bardeen process not only heats the pipe, but also involves the application of longitudinal pressure. In the first place, during heating the pipe has heavy spring pressure on its ends so that there is a constant pressure of about 3000 pounds on it in the direction of its length. As the pipe is heated to a carefully regulated temperature this pressure tends to squeeze the pipe together and to repair any small cracks running around it.

In the process electricity is used as the heating medium. The first great advantage of the electric method is that each joint can be heated separately and the heat carefully controlled. In practice it requires something over fifteen minutes in which to heat a six-inch pipe twenty feet long, and during the heating the operator is able at all times to observe the pipe, which rests on a flat surface and is covered with a light asbestos hood. By heating it electrically and slowly the joint is very evenly heated throughout its length and has a chance to expand slowly. As soon as the pipe reaches a desired temperature the heating operation is shut off instantly. As during the heating operation the current actually flows through the pipe, and the heat is generated in the body of the pipe, this heat is evenly generated throughout the body of the metal, and as all the losses are on the outer and inner surfaces, it follows that these surfaces are the cooler. Considering the pipe as a plate, it will be seen that the surfaces

of the plate are cooler than the interior. It is highly probable that this unequal heating through the thickness of the material causes a working which helps to weld the cracks and arrest the fatigue.

It is not this feature which makes the process a success, however, but the electromagnetic action which is taking place simultaneously. The magnetic lines of force flow in a plane at right angles to the direction of current flow—that is, as the current flows along the pipe magnetic lines flow around it. It is easy to calculate that the steel of the pipe is saturated with magnetism. It is, further, easy to calculate that the force exerted, which is in effect a squeezing of the pipe together, is in excess of three hundred pounds per square inch. In other words, the magnetic pull in the body of the material is at least three hundred pounds per square inch. Under this enormous pressure any cracks are “ironed out” and the material of the pipe rewelded over the cracks. Moreover, as the pipe is treated on alternating current, this magnetic pull is applied and released from eighty to one hundred times a second. As the pipe is under this pressure, which is working constantly for from fifteen to twenty minutes, it is not surprising that after being cooled it fails to show any evidence of fatigue.

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“This little note, from the *Danbury News*, 1877, still looks pretty good,” according to the *Telephone Review*:

“With a telephone and a wife a man ought to hear all that’s going on.

The times do not change so much, after all, do they?”



# Three-horse-power Horses

IF the Couple Gear idea were new there wouldn't be so much to be said about the operating feats of this unusual type of electric truck. But when trucks with equipment from five to nine years old perform such stunts it becomes really noteworthy. For instance in the motor truck equipment of the Clarence L. Smith Company there are two five-ton vehicles that frequently haul loads a third again over their rated capacity. Five years ago these two trucks were drawn by horses and in fair weather with loads not exceeding four tons each they managed to do about twenty miles a day. The horses have since been disposed of and Couple Gear equipment is doing the work and hauling the trucks sometimes as far as thirty-five miles a day.

Couple Gear equipment it should be understood consists of two rather bulky looking wheels each of which contains a three horse-power motor. At each end of the motor armature there is a cog wheel which engages cogs set within the rim of the wheel. The motor receives its energy from a storage battery, and is controlled by a mechanism very similar to a trolley control, mounted near the driver's seat. Quite frequently this equip-

ment is mounted on vehicles designed originally for horse operation, thus converting a horse truck to an automobile.

In the case of the trucks already referred to the wheels and battery were installed five years ago. At



*Photographic Bureau of The New York Edison Company*

**How Horse-Drawn Trucks are Changed to Automobiles. The Bulk of the Weight is Carried on the Steel Tired Rear Wheels**

that time they were four years old, and now with a service record of nine years they are doing their work as efficiently as ever. And heavy work it is too, for the Smith concern is engaged in the contracting business, a large part of which has to do with rock excavations. And a rock eight feet long and three to four feet through is bound to make its presence felt on any truck. And that is the work these nine year old motors have been doing for the past five years.

They did something else too—



## The Edison Monthly

something the horses don't enthuse over. In a word they showed how much better the electric truck was than horses, and in the past five years there hasn't been a single horse purchased for the Smith establishment. On the other hand, several additional electrics have been installed.

Another old time truck in this establishment, one also engaged in heavy hauling, pulled a twenty-ton

in this it finds its largest use for electric trucks.

Whether or not the Smith Company has any reason for being especially partial for things electric the writer is unable to say. The fact remains, however, that electric trucks form only a part of the electric equipment used in big hole-digging jobs. The excavation for the cellar of the big moving picture theatre extending

through from Fiftieth to Fifty-first streets, just west of Broadway, illustrates the extensive use of electricity in this work. Two big air compressors, each driven by a 50-60 horse power motor supplied all the air used by the rock drills. Four hoists ranging in size from 50 horse power to 60 horse-power were used in lifting the broken rock from the excavation to the street level and three electric trucks carted the material to the dumps. It is interesting to note that not a pound of steam was used in any part of the work.

In this construction job, as in the charging of the batteries of the vehicles used by the concern, all the current was supplied from the mains of The New York Edison Company.

The Smith Company not only handles its own contracting business, but acts as the New York representative of the Couple Gear Company and in this capacity operates the service station for the trucks of this type in



*Photographic Bureau of The New York Edison Company*  
**Motor-Driven Hoists and Electric Trucks Were Big Factors in Excavating the Cellar for the Capitol Theatre in West Fiftieth Street**

load a while ago. The truck itself weighs six tons and it pulled in a coal truck weighing six tons and carrying an eight-ton load—twenty tons in all and pulled by two three horse-power motors mounted within these unusual wheels.

The company is in the general contracting business. Part of its activities is the hauling of heavy material on contract and the supplying of electric trucks for all kinds of work. Its principal occupations, however, are in building contracting and



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this city. As a consequence, reports on unusual operating feats of these trucks find their way quite frequently to the garage at 11th Avenue and 30th Street.

Not the least interesting of these is the record of the big vehicle used by the Clover Farms Dairy for hauling cans of milk from the New Jersey freight stations to the Harlem pasteurizing plant of the company. The trip from 131st Street and Broadway to the ferry at the foot of West 23rd Street, a distance of  $5\frac{1}{2}$  miles, has been made in 27 minutes. The truck has been in service two years, it carries a seven-ton load, and since it must be ready for trips both day and night it is provided with extra batteries, with facilities for rapid transfer of the exhausted battery for the newly charged one.

The seven-ton platform truck used by the R C Williams Company in wholesale grocery delivery has been giving excellent service for the past five years. Another seven-ton truck, used in the delivery of coal by Henry Hencken, was restored to service none the worse for its trip over the edge of a dock into the river.

During the past winter a fleet of the Smith trucks, equipped with snow plows did effective work in the removal of snow from the trolley tracks. In this they supplemented the regular trucks of the company.

Judging by the performances of these vehicles, it is apparent that they are admirably suited for heavy work. One of the reasons for this is found in the fact that while the vehicles are essentially automobiles, they retain the strength features of regular platform trucks. Particularly is this true of the rear wheels. These carry the bulk of the load, and are tired with broad steel bands, and mounted on axles of special type.



*Photographic Bureau of The New York Editors Company*

The Air Compressor Plant Mounted on Wheels is Moved Readily from Job to Job

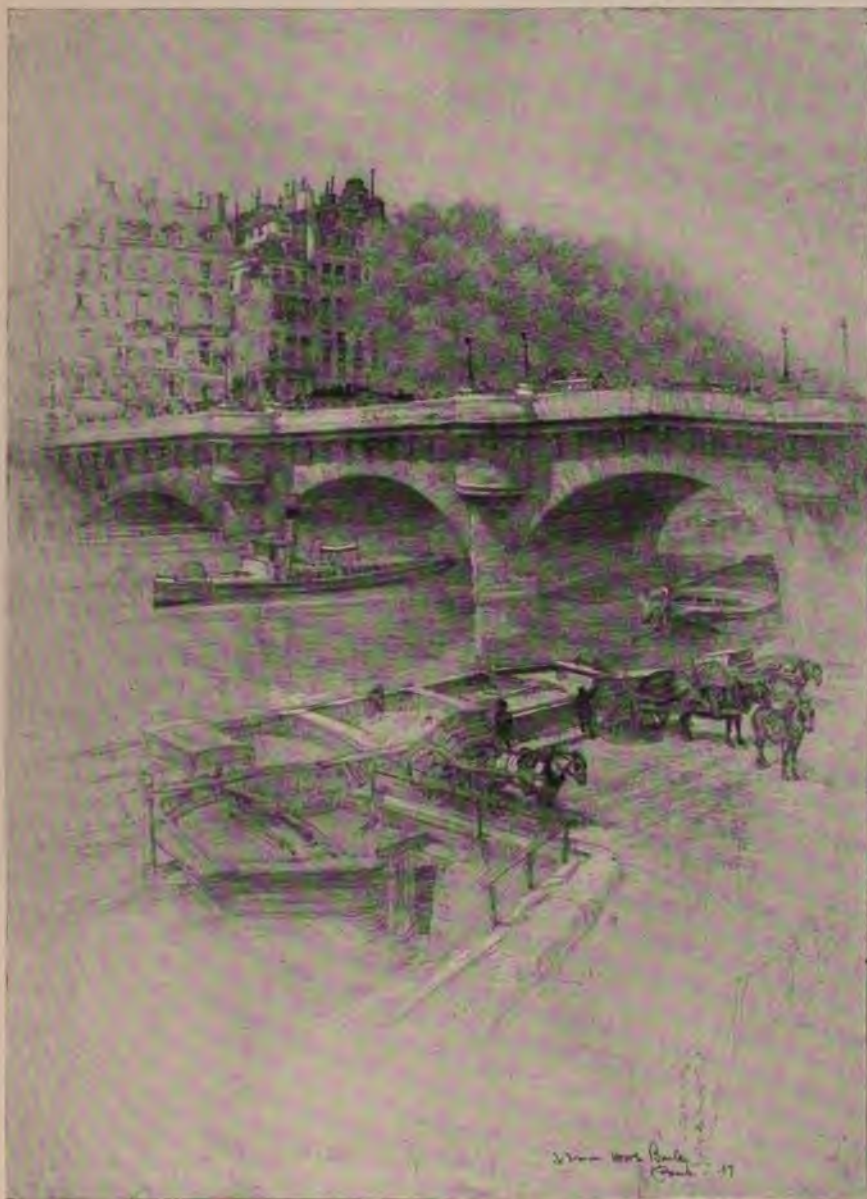
### The Electric Light Pole to a Young Pine

So you think, my little pine,  
Just because I'm stripped of bark  
And you look so green and fine  
That I'm spent, a sapling's mark.

Is it much to sigh and bend?  
Both your shade and cones are small.  
Though so gray and stiff, I send  
Light to cones that never fall!

—Richard Butler Glaesner

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*Drawn by Vernon Howe Barley*

One of the Seine River Bridges at Paris in the Days Before the War







Sheridan Square

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Broadway District, with offices at 424 Broadway—Telephone Canal 8600—includes the territory south of Christopher and Eighth Streets, west of the Bowery and south of Catharine Street

Delancey Street District, with offices at 126 Delancey Street—Telephone Orchard 1960—includes the territory south of Eighth Street, east of and including the Bowery, and north of and including Catharine Street

Irving Place District, with offices at 10 Irving Place—Telephone Stuyvesant 5600—covers the territory between and includes Eighth Street and Twenty-eighth Street from the East to North Rivers

Forty-second Street District, with offices at 124 West 42nd Street—Telephone Bryant 5262—includes the territory north of Twenty-eighth Street to and including Fifty-ninth Street from the East to North Rivers

East Eighty-sixth Street District, with offices at 151 East 86th Street—Telephone Lenox 7780—includes the territory lying north of Fifty-ninth Street and south of One Hundred and Tenth Street, east of Central Park

Harlem District, with offices at 15 East 125th Street—Telephone Harlem 4020—includes the territory bounded by the North River, Fifty-ninth Street, Central Park, One Hundred and Tenth Street, East River to and including One Hundred and Thirty-sixth Street east of St Nicholas Avenue, and to the south side of One Hundred and Thirty-fifth Street west of St Nicholas Avenue

Bronx District, with offices at 362 East 149th Street—Telephone Melrose 9900—includes the territory bounded on the north by Yonkers City Line, on the east by the Bronx River, on the south by the East and Harlem Rivers, on the west by the Harlem River to Spuyten Duyvil; north of Spuyten Duyvil by the Hudson River



## The Edison Monthly

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While electrical equipment for the private dental office is looked upon as the usual thing both by the profession and by laymen, it doubtless came as somewhat of a surprise to many to learn just how highly the members of the dental profession regard these modern adjuncts to their work and what an important part it plays in making men fit for Army service.

Although the average patient quite expects an electric motor to operate the burrs by which his teeth are drilled, and an incandescent lamp to light the dentist to his task, and perhaps an electric lathe to do mechanical work, he wasn't entirely ready to see the same electric engine, the same lights and the same instruments as part of the equipment of a portable office designed for quick transfer to any part of a big cantonment. Yet that is just what he did find in the dental ambulance, exhibited to New Yorkers by the dental staff from Camp Upton. The ambulance was shown last July in front of the Public Library.

The American soldier who for one reason or another cannot come to the big camp infirmary for dental treatment will find a small part of the infirmary ready to come to him. And although the office is portable, it

does not suffer the limitations of space and the thoroughness of equipment that one might be lead to expect, for the dental ambulance includes in addition to the electric equipment mentioned, a complete sterilizing outfit, gas tanks for anæsthetizing, a laboratory equipment, compressed air, running water, and a storage battery to supply current.

The dental ambulance makes use of electricity in several ways. The dental surgeons at the camp use it for every conceivable purpose, and it is not too much to say that but for electricity's aid, many of the thousands of men who have been made fit for service, would have been denied a part in history's greatest conflict.



During the first half of the present year, private generating plants in Manhattan, supplying installations of something more than 7000 horsepower in motors and 65000 incandescent lamps, were abandoned in favor of electric service from the Waterside stations of The New York Edison Company. The close-downs averaged more than six a month for the half-year period, and with those of the last half of 1917 bring the total to more than a hundred.

The mere figures should be a convincing argument of the advantages of Central Station service. A study of the figures, which reveals the character of the properties affected makes the argument almost unanswerable. Practically every class of building in the city is found on the list. There are hotels, and apartment houses, office buildings and lofts, factories and breweries and an ice-making plant.



## The Edison Monthly

It is recognized that the more efficient generating equipment of the large central station requires less coal for a given output of electrical energy than the small isolated plant. In some instances the ratio is four to one. Multiply the fuel saving on each kilowatt hour output of these hundred plants and the saving of coal in Manhattan, through the abandonment of private generating equipment during the past year, becomes a total of tremendous quantities.

All of which is not only a very material advantage for the properties concerned, but is an important step in the vital problem of conservation of National resources.



No more striking illustration of the advantage of the practice of co-operation over the theory of independent effort could be found than that afforded by the joint delivery system of the McCreery and Lord & Taylor stores.

In the present abnormal business condition it would be manifestly unfair to compare methods and costs of today with those which prevailed before the two delivery departments pooled their problems and their resources. For one thing costs, as they have in every other business, have gone to unusual heights. On the other hand, the conservation effort which has restricted deliveries to one a day, and the fact that shoppers now carry many of their packages with them, have done much to lessen the demands on the delivery department.

However, the conditions which prevailed just prior to the consolidation,

and those of the following year, were similar enough to afford a good basis of comparison.

When the stores decided upon a co-operative delivery system, the Eleto Company took over all the vehicles of the two concerns. This included fifty electric vehicles, as many gas cars and some 200 horses. About the first thing the Eleto Company did was to dispose of the horses. Only nine were retained, and they are still used for short hauls.

During the first year of the Eleto Company's operation, deliveries were about what they had been during the year before when each store handled its own deliveries. Yet the motor vehicle equipment was sufficient to handle all of it. In other words, the 200 horses represent the waste of independent effort.

Some interesting details of the Eleto Company's methods are published elsewhere in this issue. While the most striking from an economic point is the enormous waste as indicated by the great number of unnecessary horses and the stable equipment they required, there is also a very substantial reduction in the cost of delivery per package. In the matter of economies effected, the electric trucks and electric delivery wagons are proving elements of no small importance.

There has been talk from time to time of cooperative delivery systems among merchants in certain communities. As a rule it has ended in talk. The McCreery-Lord & Taylor instance has become an actuality, both to the profit of the companies concerned, and to the benefit of the community they serve.



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### The Slave of the Lamp

Aladdin's Lamp well rubbed they say,  
Could turn the darkness into day.  
Build palaces and shift them where  
It listed through the desert air:  
Yea, if so needed lift the hills aside  
Or dim the stars and stem the ocean's tide,  
Make jewels rare from sand and humble clay,  
And ride its owner 'cross the sky's highway,  
Speed messages from zone to zone  
Where'er its keeper wished to have them known.

Such magic this beguiled our boyhood dreams,  
Yet simple now the genii's labor seems:  
We do all these, the well-rubbed lamp we know  
Is but the purring, whirring dynamo,  
Whose current flowing as its owner wills  
Can set aside the bulk of earthen hills,  
Light up the night and send the stars away,  
Replace the moonbeams with the glow of day,  
Concoct new jewels in the hot retort  
And guide the wandering vessel to its port.  
No task too great or small of all we show  
To daunt the stirring, turning dynamo!

*Don C Seitz*

# Old-time Locks

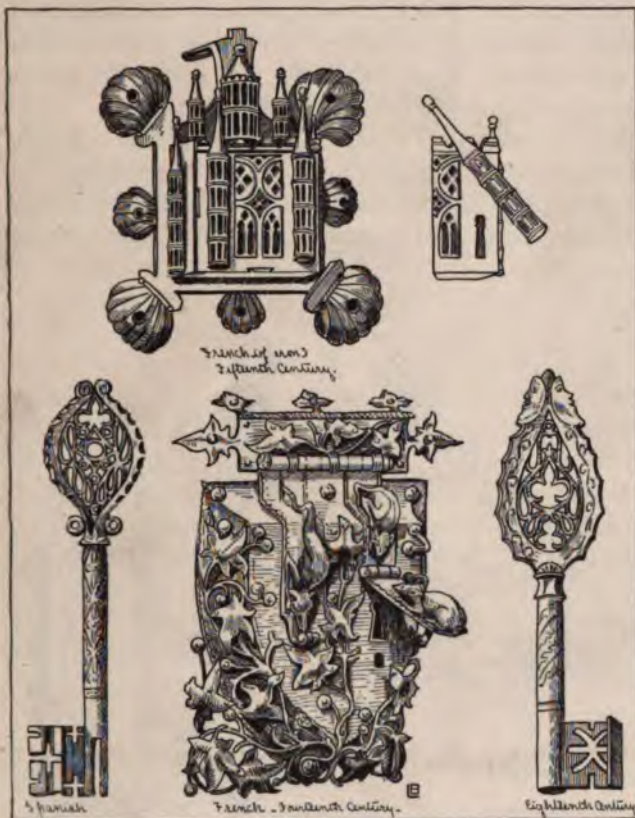
**I**N a quaint discussion of locks and their ways an old English commentator starts out by observing that "no man becomes completely wicked all at once," and goes on to describe the invention of locks as "a duty in removing the temptation to steal." Whether this altruistic and distinctly outside view of the matter is historic would be hard to say. The world back in 4000 B C may have been thus gifted, and it

may not. It is safe, however, to assume that some at least of the then bank presidents and department store heads looked at the thing decidedly from the inside.

Needless to say, primitive society had as little need of locks and other door fastenings as it had goods to protect. But about the time tiger-tooth necklaces became the rage and wardrobes grew to include an extra hair shirt something had to be done to make them safe.

What this something was may be assumed from the thongs and wood bolts that guard the doors of primitive peoples today.

The later use of metal in lock making marks the advent of needs and vanities of somewhat more value. Indeed the metal or metal-trimmed lock appears along with a pretty advanced state of society. Yet even in Judges mention is made of wooden doors and locks at a time when tents are supposed to have still been the thing. For example Ehud, one of the fathers of a great profession, is said to have locked carefully with a key the room in which he had just



*Drawn by Edna Hood Lissak*

Highly Ornamented Locks and Keys of the Renaissance Period, which, Singularly, Combine Both Strength and Beauty



## The Edison Monthly

assassinated Eglon, King of Moab.

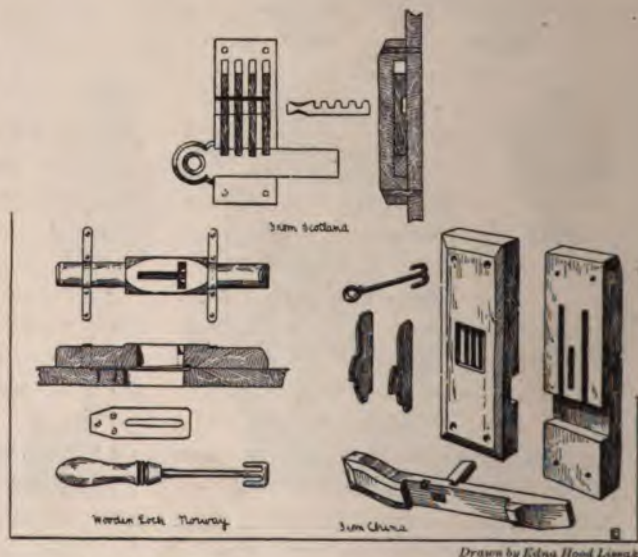
The earliest locks worthy the name were probably of Chinese origin. Specimens still extant are quite as secure as any locks made in Europe up to the eighteenth century, though it is impossible to fix the date of their manufacture. Evidently in this direction as in various others the Celestials of a time approximating the roaming of gods upon the earth, concocted more than the present enlightened time is willing to concede.

Cleopatra, who from all accounts, had as much need of securely fastened doors as any worthy of the ancient world, inherited a very effective type of lock from a line of grandpapas the remoteness of which human record knoweth not. This affair was of iron, stone, or wood as occasion required, and the system of pins and slots that made up its complicated inside would have done credit to any age short of the actual. It is interesting to find in connection with Egyptian lock-making a more than modern sort of trades union comprising a body of skilled smiths who, not content with a special code of laws and regulations, formed themselves into a distinct social caste.

The countrymen of the ill-fated Antony, long before that historic love affair, had gone in for locks quite the equal of the Egyptian, with the further embellishment of silver keys. In fact,

these locks of early Rome are said to have reached a perfection that has hardly been outdone since. The simplest form of Roman lock used one pin or tumbler to which a key of one tooth was applied. But more tumblers were added gradually, so that in time the locks in question were remarkably effective. A further advantage, of course, was the fact that the more complicated the lock the harder it was for classical housebreakers to fit a key. The Athenians, whose passion for the outward and visible hesitated at little, were not impressed by the inside excellence of many tumblers. Their locks were big and relatively simple, and the bow shaped keys thereof were of such dimensions that they had to be carried about hung over the shoulder.

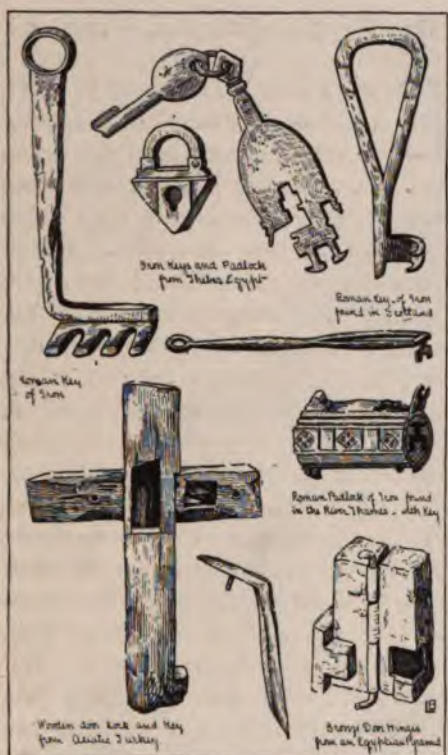
The form taken by locks during feudal times has figured often and ponderously in tales of drawbridge and portcullis, siege and foray, where



Venerable Wood and Iron Specimens Showing Early Use of Tumblers



## The Edison Monthly



Roman and Turkish Locks, the Former Remarkably Efficient of this Kind

weight was the one factor to weigh at all heavily with the parties concerned. The Renaissance which took the bulge out of bulging in most departments of life made over the lock to a degree calculated to rob the Times That Were of every vestige of confidence. In truth, the new fever for beautifying transformed door lock and casket lock alike into something very closely approaching jewelry. Not content with reducing the old-time affairs to minute apologies, these zealous craftsmen chased and engraved the metal surfaces with the daintiest designs. Even the keys came in for embellishment, and not a few were inlaid with color and precious metals showing coats-of-arms or some fanciful device.

or other. Needless to say, a good share of these productions brought fabulous prices.

Later on, size seems to have come into its own again, though the decorations persisted and even grew in complexity. In the elegant days of Louis XVI interest centered on the key hole which became so small as to be almost invisible. As a consequence the keys themselves were most delicate objects and frequently were made to be worn as rings. Some of these came to be known as "wedding keys" and were presented to the bride as the "open sesame" for the hope chest or whatever corresponded to it at the time. In Scandinavia, where elegance seems to have held a secondary place, the locks of this and subsequent centuries have been conspicuously effective, even though often formed of wood.

The "ward" system which has had its ups and downs in later and more practical times was in full swing back in the Middle Ages and was looked upon as pretty much the real thing up to the last hundred years. Yet about that time the still older "tumbler" system was revised, but with the difference that the tumblers instead of being inserted vertically as in ancient times were now inserted horizontally.

It is on this principle that whatever advance has since been made in the locksmith's art is based. That this advance has been tremendous both in essence and variety need not be pointed out here. The very fact that the wealth of the world has grown tremendously would account for this in large part. The further fact that this wealth has come to be distributed rather more generally



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than in "the brave days of old" has meant courageous measures for the guarding of every man's goods. As in all mechanical advances of any account, electricity has taken a great share in this development. What this share is and means in lock security will be told of in a succeeding article.

### The Dark That Failed

A burglar lay in his prison cell,  
And loud lamented he,  
For he was doomed to a lengthy spell,  
Where burglars hate to be.

"Alas, the good old days," he wailed,  
"Of match and kerosene,  
When honest darkness never, failed,  
And get-aways were clean.

"But now, one's never safe at all  
From guns and traps and snares,  
Snap goes a switch—each room and  
hall  
With deadly radiance glares.

"There's no chance now for Art," he  
said,  
"And Romance has a blight,  
And there's the reason overhead,  
That blasted Tungsten light!"

*By Waldo T Davis*

### The Bradish-Johnson Venture

EDISON SERVICE and real estate foresight have always made a combination hard to beat. The new Bradish-Johnson Building at 925 Broadway and 151 Fifth avenue is a case in point. When proposed, the undertaking met with the most adverse prophecies from all property interests familiar with the section. Yet even on the day of its opening, the building found itself in big demand.

In spite of the fact that every city department—fire, health, and the rest had been jumping on the former structure for years, that venerable building would still have been filling the space but for the courage of the estate. The decision to replace it with a development modern in every way was taken late in 1916, and the contract was let on the first of January, 1917. The actual work of tearing down began on February first, and so rapidly did events move that some of the new tenants were arranging their desks on the first of February, 1918.

The courage involved in the undertaking is brought out clearly by the fact that scarcely three months after the work began the price of materials rose to such an extent that no one at the moment would have considered such an operation. Indeed, the building may be said to have been put up on a ninety days' margin, but thanks to the foresight of those responsible, it was done on a paying basis.



*Photographie Bureau of The New York Edison Company*

Section of Main Corridor Reaching Through to Broadway

## The Edison Monthly



*Architects, Maynick and Franks*

*Photographic Bureau of The New York Edison Company*

**The Bradish-Johnson Building at Broadway, Fifth Avenue and Twenty-first Street**



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*  
**Pumping Installation and Edison Service Board**

At present, a would-be tenant, in going over the property and finding that vacancies are scarce, finds also a degree of up-to-dateness in finish and feature that makes his disappointment all the keener. Unusually large windows provide light from three sides, while additional windows also face the north. In fact, for all practical purposes, the building is lighted from four sides. High speed electric elevators open from the corridor which extends through the building from Fifth avenue to Broadway. Fast running electric freight elevators are located in the centre of the property facing Twenty-first street, assuring excellent and unobstructed shipping facilities.

On the question of artificial lighting, each tenant has made his own arrangements. As the building is purely of the office sort, these arrangements are in a general way similar, though individual preference in the

type of fixtures is brought out strongly. In the corridor already mentioned and in the public halls and spaces above stairs, ornamental semi-indirect fixtures show careful planning and regard to particular surroundings. In meeting lighting requirements of the building a total of 3500 incandescent lamps is employed.

The same up-to-the-minute attention to requirements is seen in the use of Edison Service for all electrical needs, the motors totaling 250 horsepower. Few buildings, in fact, have been so equipped with less questioning over the value of such supply. It may even be said that the question never arose here.

When asked about this, Mr Bradish G Johnson said: "Our architects, Maynicke and Franke, strongly recommended Edison Supply, and as I personally had observed the service it was giving in other large properties, we concluded at once to install it in this building. I am convinced that this service is a most important one among others contributing to the success of our venture."



*Photographic Bureau of The New York Edison Company*  
**Typical Bradish-Johnson Office. Note Abundance of Natural Lighting**

# Electric Co-operative Delivery

SINCE February, 1916, New Yorkers have been seeing and probably wondering at the wagons of a mysterious Eleto Company. These trim electric vehicles, with their uni-

Behind this name, however, is an interesting story of the value of co-operation, for the Eleto Company came into existence when the McCreery and Lord & Taylor stores decided to change from their old-time methods of individual delivery and have the work handled by one organization. In other words, they decided to unite in the delivery of packages to the homes of their customers and the Eleto Company was organized to do the work.

During 1915, when the stores were handling their own deliveries, the two delivery equipments consisted of 90 automobiles, 45 of which were electrics, and 200 horses. As might be expected under the circum-



*Photographic Bureau of The New York Edison Company*

The Transfer Van Which Brings the McCreery Packages to the Eleto Company's Sorting Department

formed drivers and helpers have been seen in every part of the City. And while by now they are a familiar sight to every one and their purpose is known to those shoppers who make their purchases at the stores of James McCreery & Company or Lord & Taylor, the origin of the name Eleto, and its meaning are just as much shrouded in mystery as ever. Nor is it the purpose of this brief article to attempt an explanation of the unusual name.

stances, it frequently happened that vehicles from the two stores were in the same neighborhood and sometimes at the same house at the same time. All of which meant that two rigs, two drivers and two helpers were being maintained to do work that probably could just as easily be handled by one outfit.

With the institution of the co-operative delivery system and the reorganization of the vehicle equipment, a study of the work that had



## The Edison Monthly

been handled by each indicated that the automobiles would be able to handle almost all of the deliveries. Accordingly the horses were sold, all but nine of the 200 animals being disposed of, and the responsibility for the deliveries devolved upon the motor vehicles.

The Eleto Company took over all the vehicles of the two stores, leased space and equipment in the basements of the buildings, handles all the deliveries and each month charges to each company a pro-rata share of the total operating expense. This in a month when slightly more than an average number of packages were delivered, amounted to 12½ cents per package. As the operating expense is a fairly steady figure, the cost per package varies with the

number of pieces handled. On the other hand, the Christmas deliveries cost 16 cents. This increase in the average cost, over the 12½ cent figure mentioned, in the face of a greatly increased number of packages is explained by the fact that it is necessary to hire extra equipment at high cost for the few weeks just before the holidays.

All the sorting, routing, sheet writing and other preparations incidental to delivery are done by the Eleto Company in the basement space already mentioned.

The suburban packages are delivered either to express companies for shipment or are taken to the Eleto suburban delivery centres in the big gas trucks of the Company. The city deliveries separated from the packages



*Photographic Bureau of The New York Edison Company*

One of the Eleto Delivery Wagons on Charge



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for suburban customers, travel on conveyors until they are picked out with other packages for each of the numbered city routes. Here a clerk lists them after which they are placed in big bins and are ready for the drivers, who take them without regard for the fact they are Lord & Taylor or McCreery packages.

Then the wagons which formerly served but one store start on their routes, and Mrs West Side on 78th Street gets her Lord & Taylor package at about the same time her neighbor across the street gets her gown from McCreery's and the two deliveries mean not two wagons on the block but only one.

The elimination of a vehicle and all that it means in stable or garage supplies and added street congestion is one of the benefits to the community of the co-operative delivery idea. The saving in dollars and cents is the very material element which influenced the store interests to make the change long before the need of conservation was as pressing as it is now.

### Exposition by Japan Electrical Association

JAPAN'S first Electrical Exposition was held in Tokyo last May. It was National in character and was given under the direction of the Government and the electrical interests of the Kingdom.

Interesting reports of the Exposition have come to THE EDISON MONTHLY from two sources. Mr Solomon Davis of the Conduit Wiring Company, who was in Japan at the time, visited the displays, and it is through his courtesy that the accompanying photograph



Ticket to the Recent Tokyo Electrical Exposition

of the ticket is reproduced. The exposition was held in one of the parks of the city, and the displays were made up almost exclusively of products of Japanese factories. These products, while now used only in the home market, will soon become competitors in the world's trade.

The other report of the exposition is from Mr K Uchimura manager of the Osaka Electric Lamp Company, who writes as follows: "Well, Japan Electrical Association has tried Electric Show in Tokyo. It is the first attempt here in this country and succeeding, and a more good result than we had expected. Naturally this company, who is adopting G E Company's patent regarding the lamp making is an exhibitor, is glad to report you those exhibits are spoken of in high terms of admiration."



## A Real Army "Pull"

**T**HROUGH the display of Camp Upton's portable dental office, mounted on an auto truck, in front of the Public Library last July, New Yorkers gained some slight idea of the importance of this branch of the Army Medical Corps. Furthermore, it was noticed that electricity is used to almost the same extent in this portable office as it is used in the private practice of the modern dentist.

Although Camp Upton has an elaborate dental equipment, with twenty-two chairs at the Dental Infirmary, five more for the Depot Brigade, and three at the Base Hospital, and a staff of Assistant Dental Surgeons, there is still need for the dental ambu-

lance, for among the thousands of soldiers who pass through the cantonment, there are many who for various reasons cannot come to any one of the three permanent offices.

For instance, when a Western regiment reached camp recently prior to embarkation, it was suspected that there were meningitis carriers among the soldiers. The suspected companies were quarantined and the men were restricted to a very limited area. Obviously they could not visit the dental offices to have their teeth cared for, so the dental office had to come to them. The dental ambulance made this possible.

Then too some of the units are quartered a long distance from the



*Photographic Bureau of The New York Edison Company*

The U S Dental Motor Car, with One of Its Side Tents Set Up



## The Edison Monthly



*Photographic Bureau of The New York Edison Company*

**The Ambulance Lacks None of the Essentials of a City Office**

camp centres. The remount station, with its seven thousand horses, is a mile and a half from the infirmary. Of course, a mere mile and a half is nothing in the life of a soldier, but it does take more or less time to do the distance, and this time, multiplied by the number of men who may need attention, might become a factor of great importance. So the ambulance is used to bring the dentist and his equipment to the men of the remount station.

According to Captain James Clements, Dental Surgeon of the 77th Division and in charge of the work at Camp Upton, this portable office has shown itself absolutely indispensable to the work of the Dental Corps.

With its complete equipment, no case is too severe to be treated, a fact which is admirably borne out by the records of the office. As many as a hundred patients have been treated in a day, the work including everything from preliminary examination to the relief of aching molars or the filling of cavities.

The dental chair, with its fountain cuspidor, is exactly similar to the chairs found in any well-appointed office. Conveniently located at one side is the familiar bracket table for instruments, while in front of the chair are the electric motor and extension arm of the all important drill. The foot control is on the floor behind the chair. Over-

head are two incandescent lamps in special reflectors, which assure adequate and well-directed illumination. A motor-driven lathe completes the electric equipment.

Heat for sterilization is provided by acetylene gas, two burners and their accompanying instrument sterilizers being provided. Medications used with the compressed air atomizers are also warmed over these burners.

The electric equipment operates at six volts, current being provided by a three-cell Willard storage battery. This battery provides sufficient energy to operate the entire electric equipment for a two weeks' period. It is the only source of electrical energy in the outfit, for the auto-



## The Edison Monthly

mobile engine is not provided with a generator. However, a rectifier makes it possible to plug in on any commercial circuit at any time, thus recharging if necessary or conserving the current in the battery, when other current is available.

The portable outfit includes in addition to the main operating room two tents, which when not in use are folded against the sides of the truck.



*Photographic Bureau of The New York Edison Company*

Current for Two Weeks' Work Is Provided by a Storage Battery

As exhibited at the Library, one of these side tents provided an additional operating chair and equipment, of the type regularly assigned to armies in the field. Such an equipment is supplied every thousand men of a division. It is so compact that it all folds up and goes into three cases which are transported by the division supply train. One case accommodates the chair, which while not as elaborate as that provided in the larger office, is every bit as practi-

cable. Another case carries the folding bracket table for instruments, while a third is for the engine. The engine is the familiar type of a generation ago with its foot treadle.

The second tent provides living quarters for the dental surgeons assigned to the unit, or it may be used as a third office.

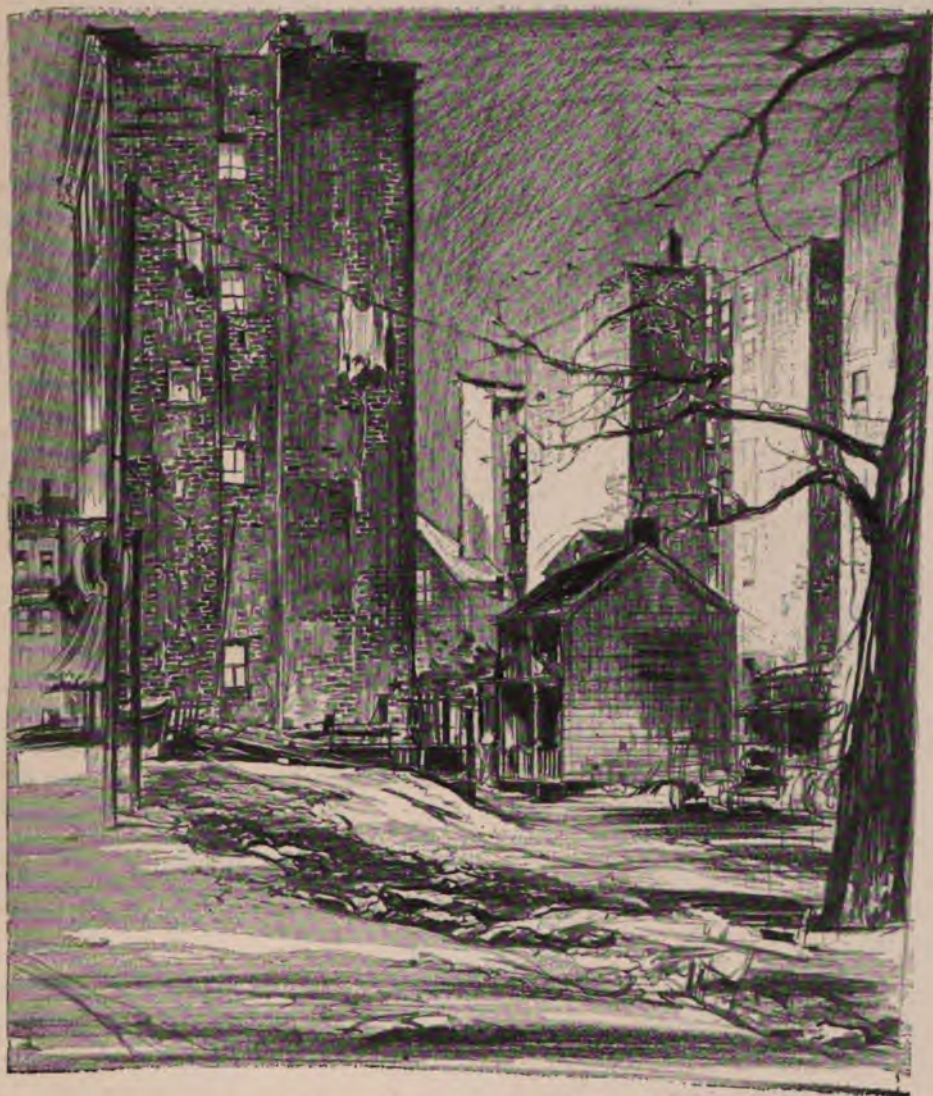
This ambulance was contributed to the Dental Infirmary of Camp Upton by Mrs W B Thompson. The gift was made through the New York Unit of the Preparedness League of American Dentists.

Of peculiar interest in the light of the present fuel scarcity is a recent article on the electrical industry in Siam in which is mentioned the use of rice husks as fuel. The husks are said to make an exceedingly hot fire and to burn with great evenness.

The central station at Bangkok, which is up-to-date in every respect, uses incidentally no less than five electric vehicles. Of these, two lighter cars are used for lamp deliveries and the remaining three, which are of the heavy truck type, are employed by the wiremen of the distribution department. All are operated, and with entire success, by unskilled natives.

They are driving them now by electricity in Texas. Several ranches in the western section of the state have already adopted it—an electrically charged driving rod. This ingenious instrument is said to be especially suited for making rebellious cattle enter dipping vats, branding pens, and other enclosures into which it is usually difficult to drive them.

## The Edison Monthly



In New York's Backyard, A Typical Tenement.

*Drawn by E. Harter*





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# THE EDISON MONTHLY

## JULY



## 1917

THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.



1882-1917



## *At Your Service*

The New York Edison Company, in its organization and in the facilities it provides for the light and power requirements of New York, represents thirty-five years of electrical development

On September 4, 1882, the first generating station of the Company was opened by Thomas A. Edison in a building in the lower part of the City. The combined capacity of the six "Jumbo" generators of that day was 750 horsepower. Today the Waterside Stations of The New York Edison Company occupy two city blocks, and the capacity of their generators is nearly 500,000 horsepower. Compared with 125-horsepower generators thirty-five years ago is the generator in the Waterside Station of 45,000 horsepower, and still larger units are being planned

Realizing its responsibility to those whom it serves, this Company has subordinated every other consideration to the maintenance of an unfailing electrical supply, and to the development of facilities for meeting at all times, and to any extent, however large or small, the complex demands of the life, the industry, and the commerce of our great city

## The New York Edison Company

### *At Your Service*

Irving Place and 15th Street—Stuyvesant 5600

*Branch Office Show Rooms for the Convenience of the Public*



Address	Telephone	Address	Telephone
424 Broadway	Canal 8600	151 East 86th Street	Lenox 7780
126 Delancey Street	Orchard 1960	15 East 125th Street	Harlem 4020
10 Irving Place	Stuyvesant 5600	362 East 149th Street	Melrose 9900
124 West 42d Street	Bryant 5262		

All Show Rooms Open Until Midnight

Night and Emergency Call: Farragut 3000



# The New York Edison Directory

## Wiring and Installation Contractors (Concluded)

### East of Broadway and Fifth Ave (Con)

East 15th St 6—Geo D Beinert Inc  
 East 21st St 22—The Shultz Electric Co  
 East 22nd St 27—Hunt & Morgan  
 East 23d St 42—Kimball Elec Construction Co  
 East 23d St 131—G C Kastner  
 East 25th St 122—Isidor Fajans  
 East 28th St 114—Burkart Elec Co  
 East 28th St 34—S H Klein  
 East 28th St 118—John Jay Gallagher Co Inc  
 East 28th St 118—Covic Electric Co  
 East 28th St 132—Miller Electric Co  
 East 28th St 159—Behlert Elec Co  
 East 30th St 20—I Hoffman & Co  
 East 32nd St 19—Robert E Leve  
 East 34th St 144—S W Electric Co  
 East 35th St 217-19—Manhattan Engineering Co  
 East 37th St 207—Reis & O'Donovan Inc  
 East 45th St 70—Edwards Elec Contracting Co  
 East 45th St 70—J Livingston & Co Inc  
 East 45th St 70—Peets & Powers  
 East 53rd St 152—Alexander B Simpson  
 East 57th St 227—Morris Levi & Co  
 East 59th St 57—Stanley Ruth & Co  
 East 72d St 167—Edward J Dustman  
 East 94th St 168—B Gliddon  
 East 125th St 77—Peter Jansen  
 Essex St 62—Nathan J Feinberg  
 First Ave 1481—Edward Zenker  
 Fourth Ave 373—Hatzel & Buehler Inc  
 Frankfort St 26-30—J F Bidstrup & Co  
 Frankfort St 32-34—John Hammill  
 Front St 124—Charles Davidson  
 Fulton St 44—Ernest Klein & Bro  
 Fulton St 44—H A Murcke Co  
 Fulton St 62—Fulton Electric Co  
 Grand Central Terminal 1735—Geo V Cooper  
 Great Jones St 5—MacNutt & Steinert  
 Great Jones St 38—August Weber  
 John St 84—Alfred Whitely  
 John St 107—William Englert  
 Lexington Ave 47—William Hass  
 Lexington Ave 186—R E Denike Inc  
 Lexington Ave 368—E F Rusie  
 Lexington Ave 405—Nathan C Solomon  
 Lexington Ave 605—Bauer & Boland  
 Lexington Ave 767—Frise & Jantzer  
 Lexington Ave 1026—Kendelhardt & Morris Inc  
 Lexington Ave 1110—The M & C Electric Co  
 Lexington Ave 1245—Julius E Woelfe  
 Lexington Ave 1296—M Strompf  
 Lexington Ave 1307—Kirschen Bros  
 Lexington Ave 1438—Kenehan & Clancy  
 Madison Ave 1—Thomas L Dillon  
 Madison Ave 712—D M Rousseau  
 Madison Ave 826—N C Haynes  
 Maiden Lane 91—Weber & Jones  
 Mott St 83—Jos Addison  
 Nassau St 132—I A Adler Co  
 Park Ave 101—Ccmstock Associate Co

Park Ave 101—United Elect Construction Co  
 Park Ave 103—Stehlin-Miller-Henes Co  
 Park Ave 632—T J McGunnigle  
 Park Ave 1630—Wimpie Electric Co  
 Park Ave 1763—G V Gedroice & Co  
 Pearl St 119—Kelting Elec Co  
 Pitt St 92—Chas Kirschenbaum  
 Rivington St 151—Schneider & Kandel  
 Rose St 35-37—Geo Weiderman Elec Co  
 Second Ave 73—J Brown  
 Stanton St 62—Sommer & Fuchs  
 Third Ave 208 and 348—Irving Kenner Co  
 Third Ave 1021—E Kalkan  
 Third Ave 1373—H Goldberg  
 Third Ave 1397—Chas J Eichman  
 Third Ave 1915—I Gabriel  
 Third Ave 2586—A F Eggers  
 Wall St 2—Edwin C Gee

### Bronx

Altmann Leopold—1226 Washington Ave  
 Blackman & Guttman—226 East 144th St  
 Bogan Irving A—4192 Park Ave  
 Casey Hugh J—4206 Park Ave.  
 Dwyer M J—447 East 180th St  
 Edelmuth Jos—1046 Jackson Ave  
 Eggers Albert F—2586 Third Ave  
 Elkan Robert—897 Home St  
 Ellerbrock Herman H—379 East 138th St  
 Evans & Kaestner—939 Intervale Ave  
 Fox Leonard B—313 E 141st St  
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Aug 1917

# THE EDISON MONTHLY

AUGUST

VGA



1917

THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.



*"At Your Service"*  
1882-1917



## Edison Sub-Stations

In the substations of the Company, now numbering thirty-four, the electric current as generated at the great Waterside power plants is transformed into the electric current as distributed throughout the City and safely used by the smallest as well as the largest consumer, for light, heat and power. These stations contain not only the machinery by which the transformation takes place, but storage batteries of large capacity, which insure a degree of evenness in the regulation of pressure and a continuity of service obtainable by no other means.

As one indication of the remarkable electrical development of the City, there are required no less than ten of these substations in the district lying between Eighth Street and Fifty-ninth Street and the two Rivers, containing many of the theatres, the large department stores and the Great White Way.

The black spots on the outline map indicate the location of these stations, and the Company's great coal storage plant on the New Jersey shore. This birdseye view well suggests the enormous extent of the Edison system which contributes so materially to making this the greatest industrial and manufacturing centre of the world, and establishes our right to call New York "The City of Light."

## The New York Edison Company

*At Your Service*

Irving Place and 15th Street—Stuyvesant 5600

Branch Office Show Rooms for the Convenience of the Public



Address  
434 Broadway  
126 Delancey Street  
10 Irving Place  
124 West 42nd Street

Telephone  
Central 5600  
Orchard 1960  
Stuyvesant 5600  
Bryant 5262

Address  
451 East 60th Street  
15 East 125th Street  
362 East 149th Street  
All show rooms open until midnight

Telephone  
Lenox 7780  
Harlem 4000  
Malrose 9900

Night and Emergency Call: Farmgut 3000

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## Wiring and Installation Contractors (Concluded)

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# THE EDISON MONTHLY

SEPTEMBER

VGA



1917

THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.



## Forty-two Plants in Seven Months Change to Edison Service

The abandonment of 42 private plants in the first seven months of 1917 proves again the essential need for Central Station current. These combined installations total 132,095 fifty-watt equivalents, an average of more than 1600 incandescents and 100 horse-power per contract.

Practically all types of buildings are represented: hotels, apartment houses, office and mercantile structures, warehouses, factories, garages, and restaurants. The hotels Ansonia and Majestic, the big Groh Cold Storage Plant in West 28th Street, and the 39-story World's Tower Building are among the number.

Edison Service was installed in each of these buildings because known to be cheaper, of superior quality, and thoroughly dependable. The efficiency of the private plant, low at the best, shows to great disadvantage at the present time. On the contrary, Central Station Service, with its limitless resources, has not been affected in the least by war conditions.

### The New York Edison Company

*At Your Service*

General Offices: Irving Place and 15th St Phone: Stuyvesant 5600

Branch Office Show Rooms for the Convenience of the Public

424 Broadway	Canal 8600	151 East 86th Street	Lenox 7780
126 Delancey Street	Orchard 1960	15 East 125th Street	Harlem 4020
10 Irving Place	Stuyvesant 5600	362 East 149th Street	Melrose 5900
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All Show Rooms Open Until Midnight

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# THE EDISON MONTHLY

OCTOBER



1917

VGA

THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.



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# THE EDISON MONTHLY

NOVEMBER VG-A



1917

THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.





## Give What Will Serve

This is a year of necessities. Your holiday giving as never before should aim at utility.

Of all gifts for home or personal usefulness, Electricity offers the most and most acceptable.

An Electric Grill or Toaster or Chafing Dish that works right on the table not only is convenience itself but saves fuel otherwise needed.

A Motor-driven Vacuum Cleaner or Electric Iron makes possible a degree of household efficiency that can be reached in no other way.

A Table or Boudoir Lamp gives the best and most adaptable light obtainable.

Nothing can serve the personal needs of your friends like the toilet and chamber accessories Electricity provides. Simple and to the point, these devices spell the last word in comfort and efficiency.

Such helps are the Logical Gifts for these difficult times. Your friends need them and you should give them. Call at our nearest show room while full assortments can be had.

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## Department Stores which Sell Electric Appliances

Adams-Flanigan Co—Westchester & Third Aves  
Bronx Basement  
Barnett Bros—Columbus Ave & 74th St  
Basement  
\*Bloomington Bros—59th St & Third Ave  
Basement  
John Daniell Sons—759 Broadway Basement  
\*Gimbel Bros—6th Ave & 33d St Fifth Floor  
\*J B Greenhut & Co—6th Ave & 18th St  
Basement  
H C F Koch & Co—132 W 125th St Basement  
Lewis & Conger—Sixth Ave & 45th St First Floor

Liggett-Riker-Hegeman Drug Stores  
\*Lord & Taylor—5th Ave & 38th St Fifth Floor  
\*James McCreery—5 W 34th St Sixth Floor  
\*R H Macy & Co—Broadway & 35th St  
Basement  
Rothenberg & Co—34 W 14th St Basement  
Stern Bros—41 W 42d St Fourth Floor  
\*John Wanamaker—Broadway & 10th St  
Seventh Floor

\*These stores maintain special electrical departments where wide varieties of electric household appliances are always displayed.

## Manufacturers and Agents

### Arc Lamps

Adams Bagnall Co—114 Liberty St  
Bogue Electric Co C J—513-15 W 29th St  
Cooper-Hewitt Elec Co—730 Grand Street  
Hoboken N J  
General Electric Co—120 Broadway  
General Illuminating Co—1604 Broadway  
Hallberg J H—38 E 23d St  
Kandem Electric Co Inc—58 Reade St  
Stave Electrical Co—131 Hudson St  
Western Elec Co—463 West St and 105 West  
40th St  
Westinghouse Elec & Mfg Co—165 Broadway  
Wohl M J & Co—211 Fulton St Brooklyn N Y

### Mercury Vapor Lamps

Cooper-Hewitt Elec Co—730 Grand Street Ho-  
boken N J  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

### Automobiles

C—Commercial I—Industrial P—Passenger  
Anderson Electric Car Co of N Y (Detroit Elec-  
tric)—Central Park West at 62d St (C & P)  
Atlantic Elec Vehicle Co—52 Vanderbilt Ave (C)  
Automatic Transportation Co—258 B'way (I)  
Baker R & L New York Corporation The—  
Central Park West at 62d St (P)  
Buda Co of Chicago—30 Church St (I)  
Comm'l Truck Co of America—30 E 42d St (C)  
Couple Gear Co—(Clarence L Smith Co Agents)  
—544 W 30th St (C)  
Cowan Truck Co—114 Liberty St (I)  
Electric Automobile Sales Corp—Times Bldg (C)  
Electro Coach Corp—30 Church St (Busses)  
Elwell-Parker Electric Co (Lucian C & G W  
Brown Agts)—50 Church St (I)  
Field Omnibus Co—149 Broadway (Busses)  
General Vehicle Co—30 East 42d St (C) (I)  
Healey & Co—Broadway and 51st St (P)  
Hoagland-Thayer Inc—383 Halsey Street  
Newark N J (I)  
Hunt Co C W Inc—61 Broadway (I)  
Lansden Co Inc The—Flatbush & Nostrand  
Aves Brooklyn (C)  
Lansing Co—288-9 West St (I)  
Mercury Mfg Co—(Truck & Tractor Co Agents)  
25 Church St  
Ohio Electric Car Co (Robt W Schuette Agent)  
—236 West 54th St (P)  
Orenstein-Arthur Koppel Co—30 Church St (I)  
Walker Vehicle Co—Grand Central Terminal  
Room 3709 (C)  
Ward Motor Vehicle Co—Mt Vernon N Y (C)

### Charging Apparatus

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—Belleville N J

Electric Products Co The—30 E 42d St  
General Electric Co—120 Broadway  
Industrial Controller Co—50 Church St  
Lincoln Electric Co—149 Broadway  
Northwestern Electric Co The—1457-63 B'way  
Wagner Electric Mfg Co—30 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Elec & Mfg Co—165 Broadway

### Charging Apparatus for Ignition, Starting and Lighting Batteries

Allen-Bradley Co—50 Church St  
Cutler-Hammer Mfg Co—50 Church St  
Eck Dynamo & Motor Co—46 West Broadway  
Edison Thomas A Inc—141 Lakeside Ave  
Orange N J  
Electric Products Co—30 E 42d St  
General Electric Co—120 Broadway  
Lincoln Electric Co—149 Broadway  
Robbins & Myers Co—30 Church St  
Wagner Electric Mfg Co—50 Church St  
Ward Leonard Electric Co—Mt Vernon N Y  
Westinghouse Electric & Manufacturing Co—  
165 Broadway

### Electric Garages

Acker Merrall & Condit Co—523 W 46th St (C)  
Exide Battery Depots Inc  
East Side Garage—141 E 25th St (C)  
North Side Garage—West End Ave & 64th St (C)  
West Side Garage—527-41 W 23d St (C)  
International Motor Co—West End Ave & 63d  
St (C)  
No Moore St Garage—56-62 No Moore St (C)  
Piercy Contracting Co—422 W 15th St (C)  
Proud Elec Co T I—114 W 54th St (P)  
The Electric Garage—Central Park West & 62d  
St (P)  
The 474 West 130th Street Garage Inc—474 W  
130th St (C)  
Wright's Garage Inc—600 W 158th St (P)

### Mechanical and Battery Parts

Anderson Electric Car Co—Central Park West  
at 62d St  
Anderson Mfg Co Albert & J M—135 Broadway  
Baker R & L New York Corporation The—  
Central Park West at 62d St  
Edison Storage Battery Co—204-206 W 76th St  
Electric Garage—Central Park West & 62d St  
Electric Storage Battery Co The—100 B'way  
Exide Battery Depots Inc—West End Ave and  
64th St  
Gassaway F S Inc—212 E 54th St  
General Lead Batteries Co—1790 Broadway  
Gould Storage Battery Co The—30 E 42 St  
Guarantee Electric Products Co—47 W 42d St  
Phila Storage Battery Co—American Building  
Broadway and 58th St  
Storage Battery Supply Co—239 East 27th St



# The New York Edison Directory

## Manufacturers and Agents (Continued)

### Mechanical and Battery Parts (Concluded)

Walker Vehicle Co—531 W 46th St  
Willard Storage Bat Co The—228-30 W 58th St

### Buffers—Polishers

Bogue Electric Co C J—513-15 W 29th St  
Fort Wayne Electric Works of the General Electric Co—30 Church St  
General Electric Co—120 Broadway  
Green Electric Co The W—81 Nassau St  
Holtzer-Cabot Electric Co—83 Warren St  
Munning-Loeb Co—Canal & Sullivan Streets  
Robbins & Myers Co The—30 Church St  
Westinghouse Elec & Mfg Co—165 Broadway

### Clocks—Time Stamps and Recorders

Betts & Betts Corporation—511-13 W 42d St  
Holtzer-Cabot Electric Co—83 Warren St  
Howard Electric Clock Co—Maiden Lane & William St  
Walker Bros & Haviland—50 Church St

### Coffee Mills

Boker H & Co Inc—101-103 Duane St  
Canton Electric Cut Co—11 E 125th St  
Coles Mfg Co—419 Long Beach Bldg  
Deer Co A J—55 West 63d St  
Hobart Mfg Co Inc The—24 East 21st St  
Howe Scale Co of N Y The—341 Broadway  
Jacobs Bros Co Inc—78 Warren St

### Drills and Grinders (Portable)

Chicago Pneumatic Tool Co—52 Vanderbilt Ave  
Cincinnati Electrical Tool Co—50 Church St  
Electro-Magnetic Tool Co—426 Broome St  
Hisey Wolf Machine Co—50 Church St  
Standard Electric Tool Co—30 Church St  
United States Electrical Co—50 Church St  
Van Dorn Electrical Tool Co—30 Church St

### Electro-Therapeutic and Dental Apparatus

American Sterilizer Co—Erie Pa  
American X-Ray Equip Co—401-405 E 31st St  
Edmonds Walter S—134 Congress St Boston Mass  
General Acoustic Co—Acousticon for the Deaf 220 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hanovia Chemical & Mfg Co—30 Church St  
Harper Oriphone Co (Instruments for the Deaf) —303-305 Fifth Avenue  
Hospital Supply Co The—53-55 Fifth Avenue  
Hotpoint Elec Heating Co—147 Waverly Pl  
Hughes Co The J W—110 E 23d St  
Johns-Manville Co H W—41st St & Madison Ave  
Kny-Scheerer Co The—404-410 West 27th St  
MacAlaster Wiggin Co—66 Broadway Cambridge Mass  
Meyrowitz E B Inc—237 Fifth Ave  
Metropolitan Eng Co—35 Vestry St  
Neel-Armstrong Co—29 W 34th St  
Pelton & Crane Co—Detroit Michigan  
Pittsburgh Electric Specialties Co—412 Eighth Ave (lamps only)  
Prometheus Elec Co The—232 E 43d St  
Ritter Dental Mfg Co—Fifth Ave Building  
Sanax Co Inc The—125 E 23d St

Shelton Elec Co—30 W 42d St  
Simplex Electric Heating Co—120 W 32d St  
Sorensen C N Co Inc—177 E 87th St  
Tiemann Co George—107 E 28th St 107 Park Row  
Trenaman Dental Mfg Co—107 W 25th St  
Victor Electric Co—110 E 23d St  
Vioray Mfg Co—915 Whitlock Ave Bronx  
Waite & Bartlett Mfg Co—252-258 W 29th St  
Wappler Elec Mfg Co Inc—173 E 87th St  
Westinghouse Electric & Mfg Co—165 B'way  
White Dental Mfg Co S S—5 Union Square  
Williams Roger—120 W 32d St  
Wolff Co Wm F—501 W 145th St

### Elevators—Dumbwaiters

American Elevator Co—117 Cedar St  
Burdett-Rowntree Mfg Co—119 W 40th St  
Burwak Elevator Co—216 Fulton St  
Dowdall Chas E Inc—152 W Broadway  
General Elevator Co—29 Broadway  
Gurney Elevator Co—62-64 W 45th St  
Jordon Bros Inc—74 Beekman St  
Maintenance Co The—417-421 Canal St  
National Elevator Co—62-64 W 45th St  
New York Elevator Co—50 Grand St  
Otis Elevator Co—11th Ave and 26th St  
Reedy Elevator Co—202 Ninth Ave  
Roberts Elevator Co Jas H—430 W Broadway  
Sedgwick Machine Works—128 Liberty St  
See Elec Elevator Co A B—220 Broadway  
Warner Elev Mfg Co—113 Warren St  
Warsaw Elevator Co—216 Fulton St  
Wheeler McDowell Elev Co—417 Canal St

### Fans, Blowers and Air Compressors

Adams Bagnall Co—114 Liberty St  
Allis-Chalmers Co—50 Church St  
American Blower Co—141 Broadway  
Beach-Russ Co—220 Broadway  
Boker H & Co Inc—101-103 Duane St  
Brunner Mfg Co—30 Church St  
Century Electric Co—30 Church St  
Clayton Air Compressor Works—115 Broadway  
Curtis & Carhart Inc—150 Chambers St  
Curtis Pneumatic Machinery Co—30 Church St  
Diehl Mfg Co—149 Broadway  
Eck Dynamo & Motor Co—46 W Broadway  
Federal Sign System (Electric)—649 W 43d St  
Fox Electrical Corporation—119 W 42d St  
Garner Ventilating Co—136 Liberty St  
General Electric Co—120 Broadway  
Gerdes Theo R N—123 Liberty St  
Hunter Fan & Motor Co—114-118 Liberty St  
Ilg Elec Vent Co—13 Park Row  
Kandem Electric Co Inc—49 E 21st St  
Kinetic Engineering Co—41 Park Row  
Koithan & Pryor—39 Cortlandt St  
Kragh C W—184 Hudson Ave  
Laidlaw-Dunn-Gordon Co—115 Broadway  
Manhattan Electrical Supply Co—17 Park Place 110 West 42d St 127 West 125th St  
National Brake & Elec Co—165 Broadway  
Robbins & Myers Co The—30 Church St  
Schoenberg R A & Co—906 6th Ave  
Smucker Arthur C—30 Church St  
Sorensen Co Inc C M—177 East 87th St  
Sprague Electric Works—527 W 34th St  
Strauss L L (For Rent)—74 W 125th St



# The New York Edison Directory

## Manufacturers and Agents (Concluded)

### Supply Dealers (Concluded)

#### Manhattan

Burnet Co The—69 South St & 1800 Park Ave  
Central Electrical Supply Co—4 West 16th St  
Crannell, Nugent & Kranzer Inc—110 W 30th St  
Fox Electrical Corporation—119 W 42d St  
Fullerton Electric Co—109-115 W 26th St  
Goetz A E—55 Barclay St  
Hartt & Morison—780 Sixth Ave  
Killoch Co David—57 Murray St  
Latham & Co E B—4 Murray St  
Leahy J J Electrical Supplies—48 Dey St  
Leveridge Chas W Inc—133 Liberty St  
Manhattan Electrical Supply Co—17 Park Pl  
110 West 42d St, 127 West 125th St  
Metropolitan Elec Products Co—101 W 42d St  
Metropolitan Elec Supply Co—126 W 36th St  
N W Elec Equip Co—35 Vestry St  
Ostrander & Co W R—371 Broadway  
Public Electrical Supply House—62 Essex St  
Royal-Eastern Elec Sup Co—114 W 27th St  
Schoenberg R A & Co—906 6th Ave  
Sibley-Pitman—19-21 West 36th St  
Smith J M & Son—4 E 8th St  
Thomas & Betts Co—105 Hudson St  
Western Elec Co—463 West St and 105 W 40th St

#### Bronx

Bronx Elec Supply Co The—612 Melrose Ave  
Royal Eastern Supply Co The—506 Willis Ave  
Webber Supply Co The—558 Melrose Ave

### Electro-Plating Apparatus and Supplies

Bogue Electric Co C J—513-15 W 29th St  
Green Electric Co W—81 Nassau St  
Munning-Loeb Co—50 Church St

### Specialties

Aladdin Lamp Corporation—52 Vanderbilt Ave  
Alpha Elec Co Inc—116-18 W 29th St  
(Harter Weatherproof Fixtures)  
Bonnell & Co W A—132 Church St  
Bromley-Mercedes Mfg Co (Dishwashing Machines)—1328 Broadway  
Brown Elec Co Wm S—3 W 29th St  
Chapin Co Chas E (Brushes for Dynamos and Motors)—201 Fulton St  
Corliss Carbon Co—114 Liberty St  
Cutler-Hammer Mfg Co The—50 Church St  
DeVeau Tele Mfg Co—472 18th St Bklyn N Y  
Electric Fountain Co The—348 W 42nd St  
Fox Electrical Corporation—119 W 42d St  
Frantz Premier Distrib Co Inc—119 W 42d St  
Fulton-Bell Co—105 W 40th St  
Guarantee Electric Products Co—47 W 42d St  
Howe Scale Co of N Y The—341 Broadway  
Kirkman Eng Corporation—237 Lafayette St  
Mercantile Adv Co—17 Battery Place  
Organ Arthur—114 Liberty St  
Pittsburgh Electric Spec Co—412 8th Ave  
Shelton Electric Co—30 E 42d St  
Universal Elec Stage Light'g Co—240 W 50th St  
Wallace Novelty Co Inc The—25 E 24th St  
Ward Leonard Electric Co—Mount Vernon N Y  
White J H Mfg Co—111 No 3rd St Brooklyn  
Wicks Electric Co—Cleveland Ohio

### Dishwashing Machines

Phillipson, Emil—110 W 40th St

### Switch and Distributing Boards

Anderson Mfg Co A & J M—135 Broadway  
Automatic Switch Co—4-6 White St  
Crouse Hinds Co—30 Church St  
Empire Eng'g & Supply Co—1 Dominick St  
General Electric Co—120 Broadway  
Johns-Manville Co H W—Mad Ave & 41st St

Krantz Mfg Co—160 Seventh St Bklyn  
Le Baron B Johnson—Madison Ave & 41st St  
Metropolitan Elec Mfg Co—Long Island City  
Metropolitan Engineering Co—35 Vestry St  
Pringle Elec Mfg Co—39 Cortlandt St  
Rall Frederick—19 Park Pl  
Sprague Electric Works—527 W 34th St  
Trumbull Electric Mfg Co—114 Liberty St  
Walker Electric Co—50 Church St  
Western Elec Co—463 West St and 105 W 40th St  
Westinghouse Elec & Mfg Co—165 Broadway

### Vacuum Cleaners

Alpha Elec Co Inc—116-18 W 29th St  
Bohn Electric Co C C (Santo)—820 Sixth Ave  
Comstock Associate Co (Sturtevant)—101 Park Avenue  
Duntley Products Sales Co—295 Fifth Ave  
Federal Sign System (Electric)—649 W 43d St  
Fox Electric Corp (Hoover)—119 W 42d St  
Frantz Premier Distrib Co Inc—119 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hartt & Morison—780 Sixth Ave  
Hot Point Electric Heating Co—147 Waverly Pl  
Hurley Machine Co (Thor)—147 W 42nd St  
Innovation Electric Co—585 Hudson St  
Metropolitan Elec Products Co—101 W 42d St  
Muenzen Specialty Co—131 W 42d St  
Ohio Co The—1463 Broadway  
Regina Co—47 West 34th St  
Richmond Radiator Co—1480 Broadway  
Schoenberg R A & Co—906 6th Ave  
Sloane W & J (Invincible) Fifth Ave and 47th St  
Spencer Turbine Cleaner Co—101 Park Ave  
Tuec Company The—1457 Broadway  
Univ Vacuum Cleaner Maint Co—47 W 38th St  
Western Elec Co—463 West St and 105 W 40th St

### Vibrators and Hair Dryers

Alpha Elec Co Inc—116-18 W 29th St  
Barker Metal Furniture Co—255 Canal St  
Fox Electrical Corporation—119 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hartt & Morison—780 Sixth Ave  
Jorgensen John—114 Liberty St  
Kandem Electric Co Inc—49 E 21st St  
Manhattan Electrical Supply Co—17 Park Place  
110 West 42d St, 127 West 125th St  
Sanax Co Inc The—125 E 23d St  
Shelton Elec Co—30 E 42d St  
Sibley-Pitman—19-21 W 36th St  
Western Elec Co—463 West St and 105 W 40th St

### Washing Machines

Apex Electric Home Appliance Co—457 Gold St  
Brooklyn N Y  
Brokaw-Eden Mfg Co (The Eden)—119 W 42d St  
Federal Sign System (Electric)—649 W 43d St  
Fox Electric Corp (Eden)—119 W 42d St  
Guarantee Electric Products Co—47 W 42d St  
Hart Wallace B—(Arora) (Judd) (1900)  
(Cataract)—46 E 41st St  
Home Devices Corp (Modern Home Washers)  
—Bush Terminal Brooklyn  
Hurley Machine Co—147-157 W 42d St  
National Sewing Machine Co—290 Broadway  
"1900" Washer Co—46 E 41st St  
Northwestern Electric Equipment Co (Geyser)—  
35 Vestry St  
Sibley-Pitman—19-21 W 36th St  
Wemlinger Co Inc The—40 Whitehall St  
Western Elec Co—105 W 40th St and 463 West St

### Welders

Lincoln Electric Co—149 Broadway  
Welding Materials Co—114 Liberty St  
Wenzel Siemens Elec Welding Co—30 Church St  
Westinghouse Electric & Mfg Co—165 Broadway  
Winfield Elec Welding Machine Co—50 Church St



# The New York Edison Directory

## Wiring and Installation Contractors

### West of Broadway and Fifth Avenue

Amsterdam Ave 868—Joseph Rice  
 Amsterdam Ave 943—P D Dunn  
 Amsterdam Ave 984—Sam A Grice & Co  
 Amsterdam Ave 1768—The Lincoln Electric & Repair Shop  
 Amsterdam Ave 1989—Manhattan Electrical Maintenance Company  
 Broadway 212—Charles S Borger  
 Broadway 335—Park Sullinger  
 Broadway 853—J Menkes  
 Broadway 1123—William J Shore  
 Broadway 1133—Van Wagoner-Linn Cons Co  
 Broadway 1170—Alliance Electric Co Inc  
 Broadway 1270—Croker National Fire Prevention Engineering Company  
 Broadway 1402—Gagen & Butler  
 Broadway 1929—F W Astarita  
 Broadway 1931—Bull-Duroy Electric Co  
 Broadway 1960—E May Inc  
 Broadway 2304—C E MacCabe  
 Broadway 2304—Frank B Widmayer Co  
 Broadway 2382—Howard S Beidleman  
 Canal St 313—Oneida Electric Co  
 Canal St 417—G E Engineering Co  
 Canal St 417—The Maintenance Co  
 Christopher St 41—W Buch  
 Church St 30—L K Comstock & Co  
 Church St 50—William Braun  
 Columbus Ave 220—Thomas F Carr  
 Columbus Ave 348—H Blumenstetter  
 Columbus Ave 517—Samuel Millinger  
 Columbus Ave 549—Hoffman & Elias  
 Columbus Ave 847—Mariposa Electric Co  
 Cortlandt St 26—Cleveland & Ryan  
 Cortlandt St 39—Blackall & Baldwin Co  
 Cortlandt St 84—Bleyle Elec Co  
 Duane St 172—Jas F Hughes Co  
 Eighth Ave 461—A J Buschmann Co  
 Eighth Ave 461—Edward B Stott & Co  
 Eighth Ave 766—H Lauer & Co  
 Fifth Ave 75—H M Walter  
 Fifth Ave 320—J P Hall-Smith Co  
 Fifth Ave 503—Alfred U Keedwell & Co  
 Fulton St 237—General Electric Inspection Co  
 Greenwich St 183—Thomas & Johnson  
 Greenwich St 255—Garret M Ross  
 Hudson St 585—S Edw Eaton & Co  
 Liberty St 120—S Arthur Brown & Co  
 Liberty St 120—Watson-Flagg Engineering Co  
 St Nicholas Ave 1048—George E Ryan Co Inc  
 Sixth Ave 440—A Goldman & Co Inc  
 Sixth Ave 617—Zenker & Siems  
 Sixth Ave 632—John J Finn  
 Sixth Ave 819—Thomas Hindley & Son  
 Sixth Ave 820—C C Bohn Electric Co  
 Sixth Ave 882—P McGunnigle & Son  
 Sixth Ave 906—R A Schoenberg & Co  
 Sixth Ave 1009—John T Whitehead & Son  
 Seventh Ave 360—Louis Freund  
 Seventh Ave 422—Franklin Elec Co  
 Seventh Ave 2286—Nathan Zolinsky

Tenth Ave 466—George E Valley & Bros  
 Tenth Ave 578—Chas F Dunker  
 Thames St 27—McLeod Ward & Co  
 Varick St 143-145—H C Griffin & Co Inc  
 Vesey St 53—F A Frey  
 West Broadway 170—J S Bihin  
 West Broadway 397—A Fox  
 West Broadway 490—X L Machine & Elec Co  
 West End Ave 165—F W Astarita  
 West St 116—Knickerbocker Electric Co  
 West 8th St 58—C S Harris  
 West 14th St 249—Kenahan & Clancy  
 West 17th St 108—Manhattan Elec Cont Co  
 West 17th St 142—Harry A Hanft  
 West 26th St 101—Pruver Electric Co  
 West 30th St 114—Tucker Elec Construction Co  
 West 31st St 109—Jandous Elec Equip Co Inc  
 West 33d St 221—E-J Elec Installation Co  
 West 34th St 20—Harry Alexander Inc  
 West 34th St 110—Nimis & Nimis Inc  
 West 35th St 147-49—N Y Elec Installation Co  
 West 39th St 42—J Fischer Electric Co  
 West 40th St 105—Lord Electric Co  
 West 40th St 337—William W Ritchie  
 West 40th St 447—Manhattan Engineering Co  
 West 40th St 458—George L Ford  
 West 42d St 17—Youmans Elec Co Inc  
 West 42d St 25—William D Munro  
 West 42d St 112—Oberg Blumberg & Bleyer  
 West 42d St 121—Conduit Wiring Co  
 West 42d St 229—M Schweiger & Co Inc  
 West 42d St 314—A & A Electric Co  
 West 45th St 56—Russell & Co  
 West 45th St 100—Robert Bernecker  
 West 48th St 209-13—Strauss & Company Inc  
 West 53d St 207—Wm A Brown  
 West 53d St 243—W E Nichols  
 West 59th St 401—John T Williams Co  
 West 72d St 176—Kaufman & Burkert  
 West 83d St 121—C A Christesen  
 West 99th St 146—John A Marcato Co  
 West 100th St 204—L Koehler  
 West 116th St 138—P Simpson  
 West 116th St 227—Lewis S Davis  
 West 125th St 71-75—H Kaufman  
 West 125th St 74—Lawrence L Strauss  
 West 125th St 215—M J Heller Elect Co  
 West 125th St 247—Planet Elec & Sup Co  
 Wooster St 12—Durbrow & Hearne Mfg Co

### East of Broadway and Fifth Avenue

Beekman St 74—Jordan Bros Const Co  
 Bible House 78—Thos C Miller  
 Beaver St 42—Hanover Elect Co  
 Broome St 114—B H Weinberg  
 Broome St 434—The Globe Electric Contracting & Repairing Company  
 Cedar St 16—Wm Truswell & Son  
 Dover St 8—Hazazer Electric Co Inc  
 East Houston St 93—I Berkowitz  
 East 3d St 48—B Ackerman Co  
 East 3d St 136—H A Schreiber  
 East 5th St 416—Frank Bloom  
 East 7th St 79—Ackerman B  
 East 8th St 4—J M Smith & Son  
 East 8th St 48—American Pressing Iron Co  
 East 13th St 2—B W Sandbach & Co

# The New York Edison Directory

## Wiring and Installation Contractors (Concluded)

### East of Broadway and Fifth Ave (Con)

East 14th St 409—S Newberger  
 East 15th St 6—Geo D Beinert Inc  
 East 21st St 22—The Shultz Electric Co  
 East 22nd St 27—Hunt & Morgan  
 East 23d St 42—Kimball Elec Construction Co  
 East 23d St 131—G C Kastner  
 East 25th St 122—Isidor Fajans  
 East 28th St 114—Burkart Elec Co  
 East 28th St 34—S H Klein  
 East 28th St 118—John Jay Gallagher Co Inc  
 East 28th St 118—Covic Electric Co  
 East 28th St 132—Miller Electric Co  
 East 28th St 159—Behlert Elec Co  
 East 30th St 20—I Hoffman & Co  
 East 32nd St 19—Robert E Leve  
 East 34th St 144—S W Electric Co  
 East 35th St 217-19—Manhattan Engineering Co  
 East 37th St 207—Reis & O'Donovan Inc  
 East 45th St 70—Edwards Elec Contracting Co  
 East 45th St 70—J Livingston & Co Inc  
 East 45th St 70—Peets & Powers  
 East 53rd St 152—Alexander B Simpson  
 East 57th St 227—Morris Levi & Co  
 East 59th St 30—K R Schullstrom  
 East 59th St 57—Stanley Ruth & Co  
 East 72d St 167—Edward J Dustman  
 East 94th St 168—B Gliddon  
 East 125th St 77—Peter Jansen  
 Essex St 62—Nathan J Feinberg  
 First Ave 1481—Edward Zenker  
 Fourth Ave 373—Hatzel & Buehler Inc  
 Frankfort St 26-30—J F Bidstrup & Co  
 Frankfort St 32-34—John Hammill  
 Front St 124—Charles Davidson  
 Fulton St 44—Ernest Klein & Bro  
 Fulton St 44—H A Murcke Co  
 Fulton St 62—Fulton Electric Co  
 Grand Central Terminal 1735—Geo V Cooper  
 Great Jones St 5—MacNutt & Steinert  
 Great Jones St 38—August Weber  
 John St 84—Alfred Whitley  
 John St 107—William Englert  
 Lexington Ave 47—William Hass  
 Lexington Ave 186—R E Denike Inc  
 Lexington Ave 368—E F Rusie  
 Lexington Ave 405—Nathan C Solomon  
 Lexington Ave 605—Bauer & Boland  
 Lexington Ave 767—Frise & Jantzer  
 Lexington Ave 1026—Kendelhardt & Morris Inc  
 Lexington Ave 1110—The M & C Electric Co  
 Lexington Ave 1245—Julius E Woelfe  
 Lexington Ave 1296—M Strompf  
 Lexington Ave 1307—Kirschen Bros  
 Madison Ave 1—Thomas L Dillon  
 Madison Ave 712—D M Rousseau  
 Madison Ave 826—N C Haynes  
 Maiden Lane 91—Weber & Jones  
 Mott St 83—Jos Addison  
 Nassau St 132—I A Adler Co  
 Park Ave 101—Comstock Associate Co  
 Park Ave 101—United Elect Construction Co  
 Park Ave 103—Stehlin-Miller-Henes Co  
 Park Ave 632—T J McGunnigle  
 Park Ave 1630—Wimpie Electric Co  
 Park Ave 1763—G V Gedroice & Co  
 Pearl St 119—Keltling Elec Co

Pitt St 92—Chas Kirschenbaum  
 Rivington St 151—Schneider & Kandel  
 Rose St 35-37—Geo Weiderman Elec Co  
 Second Ave 73—J Brown  
 Stanton St 62—Sommer & Fuchs  
 Third Ave 208 and 348—Irving Kenner Co  
 Third Ave 1021—E Kalkan  
 Third Ave 1373—H Goldberg  
 Third Ave 1397—Chas J Eichman  
 Third Ave 1915—I Gabriel  
 Third Ave 2586—A F Eggers  
 Wall St 2—Edwin C Gee

### Bronx

Altmann Leopold—1226 Washington Ave  
 Blackman & Guttman—226 East 144th St  
 Bogan Irving A—4192 Park Ave  
 Casey Hugh J—4206 Park Ave  
 Dunn Edw W—32 West Fordham Road  
 Dwyer M J—447 East 180th St  
 Edelmuth Jos—1046 Jackson Ave  
 Eggers Albert F—2586 Third Ave  
 Elkan Robert—897 Home St  
 Ellerbrock Herman H—379 East 138th St  
 Evans & Kaestner—939 Intervale Ave  
 Fox Leonard B—313 E 141st St  
 Hegeler F H—305 E 180th St  
 Howe J F—3113 Webster Ave  
 Israel & Co—2559 Third Ave  
 Josephson Joseph B—785 Forest Ave  
 Kuhn George—531 E 184th St  
 Landy Jacob—673 Elton Ave  
 Lowe J—835 E 152d St  
 M & M Electric Co—1643 Nelson Ave  
 Mathias J J—443 Willis Ave  
 Martin Robert C—815 E 180th St  
 Neilson Brothers—2580 Briggs Ave  
 Oehnke Paul—390 E 141st St  
 Pircher Frank S—339 E 140th St  
 Rosenfield & Harris—915 Whitlock Ave  
 Ross Edwin L—356 East 138th St  
 Sayles Electric Co—736 E 163d St  
 Schwarzler M & Son—460 E 167th St  
 Sladek Frank—3440 Third Ave  
 Starobin Jos—860 East 162d St  
 Strachan E A—435 E 155th St  
 Uhlendorf—5 Gouverneur Place  
 Vielberth Joseph F—1243 Taylor Ave  
 Woods Lewis H—2355 Jerome Ave  
 Yale Electric Co—650 Melrose Ave

### Yonkers

Briant Leslie D—30-32 Nepperhan St  
 Excelsior Gas & Elec Fix Co—42 Warburton Ave  
 Haussler Wm A—12 Riverview Place  
 Kips John—28 Cedar St  
 Nugent Electric Co—42 Warburton Ave  
 Snow W J—Crestwood  
 Stillman J E & Co—15 Warburton Ave  
 Stroh Electric Co—16 Riverdale Ave  
 Westchester Elect Equipment Co—73 Main St  
 Yonkers Electric Co—7 Manor House Square  
 Yonkers Lighting Fixture Co—73 Main St  
 Youmans Electric Co—45 Main St





Tech. Div. 0

DEC 22 1917

# THE EDISON MONTHLY

## DECEMBER



### 1917

VGA

THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.



# Give Usefully



This Christmas, especially, the receiver will appreciate something useful. Electric Appliances for the home are both practicable and useful. They save time and effort, and bring satisfaction and comfort every day in the year.

Vacuum cleaners, washing machines, electric cooking devices, toilet accessories—all mean freedom from excessive physical effort.

Many examples may be seen in operation in our Show Rooms. Some cost suggestions—the figures given usually representing minimum cost.

Irons	\$4.50	Vacuum Cleaners	\$30.00
Toasters	4.50	Milk Warmers	8.50
Grills	7.50	Washing Machines	45.00
Chafing Dishes	11.00	Immersion Heaters	3.00
Percolators	11.00	Samovars	8.50
Portable Lamps	3.75	Egg Boilers	4.50
Heating Pads	3.50	Hair Dryers	16.50
Vibrators	12.50	Curling Irons	3.75
Sewing Machine Motors	15.00	Hot Plates	6.50

## The New York Edison Company

*At Your Service*

General Offices: Irving Place and 15th St Phone: Stuyvesant 5600

Branch Office Show Rooms for the Convenience of the Public

424 Broadway	Canal 8600	151 East 86th Street	Lenox 7780
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All Show Rooms Open Until Midnight

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# The New York Edison Directory

## Wiring and Installation Contractors (Concluded)

### East of Broadway and Fifth Ave (Con)

East 14th St 409—S Newberger  
 East 15th St 6—Geo D Beinert Inc  
 East 21st St 22—The Shultz Electric Co  
 East 22nd St 27—Hunt & Morgan  
 East 23d St 42—Kimball Elec Construction Co  
 East 23d St 131—G C Kastner  
 East 25th St 122—Isidor Fajans  
 East 28th St 114—Burkart Elec Co  
 East 28th St 34—S H Klein  
 East 28th St 118—John Jay Gallagher Co Inc  
 East 28th St 118—Covic Electric Co  
 East 28th St 132—Miller Electric Co  
 East 28th St 159—Behlert Elec Co  
 East 30th St 20—I Hoffman & Co  
 East 32nd St 19—Robert E Leve  
 East 34th St 144—S W Electric Co  
 East 35th St 217-19—Manhattan Engineering Co  
 East 37th St 207—Reis & O'Donovan Inc  
 East 45th St 70—Edwards Elec Contracting Co  
 East 45th St 70—J Livingston & Co Inc  
 East 45th St 70—Peets & Powers  
 East 53rd St 152—Alexander B Simpson  
 East 57th St 227—Morris Levi & Co  
 East 59th St 30—K R Schullstrom  
 East 59th St 57—Stanley Ruth & Co  
 East 72d St 167—Edward J Dustman  
 East 77th St 149—Louis Segalbaum  
 East 94th St 168—B Gliddon  
 East 125th St 77—Peter Jansen  
 Essex St 62—Nathan J Feinberg  
 First Ave 1481—Edward Zenker  
 Fourth Ave 373—Hatzel & Buehler Inc  
 Frankfort St 26-30—J F Bidstrup & Co  
 Frankfort St 32-34—John Hammill  
 Front St 124—Charles Davidson  
 Fulton St 44—Ernest Klein & Bro  
 Fulton St 44—H A Murcke Co  
 Fulton St 62—Fulton Electric Co  
 Grand Central Terminal 1735—Geo V Cooper  
 Great Jones St 5—MacNutt & Steinert  
 Great Jones St 38—August Weber  
 John St 84—Alfred Whitely  
 John St 107—William Englert  
 Lexington Ave 47—William Hass  
 Lexington Ave 186—R E Denike Inc  
 Lexington Ave 368—E F Rusie  
 Lexington Ave 405—Nathan C Solomon  
 Lexington Ave 605—Bauer & Boland  
 Lexington Ave 767—Frise & Jantzer  
 Lexington Ave 1026—Kendelhardt & Morris Inc  
 Lexington Ave 1110—The M & C Electric Co  
 Lexington Ave 1245—Julius E Woelfe  
 Lexington Ave 1296—M Strompf  
 Lexington Ave 1307—Kirschen Bros  
 Madison Ave 1—Thomas L Dillon  
 Madison Ave 712—D M Rousseau  
 Madison Ave 826—N C Haynes  
 Maiden Lane 91—Weber & Jones  
 Mott St 83—Jos Addison  
 Nassau St 132—I A Adler Co  
 Park Ave 101—Comstock Associate Co  
 Park Ave 101—United Elect Construction Co  
 Park Ave 103—Stehlin-Miller-Henes Co  
 Park Ave 632—T J McGunnigle  
 Park Ave 1630—Wimpie Electric Co  
 Park Ave 1763—G V Gedroice & Co

Pearl St 119—Kelting Elec Co  
 Pitt St 92—Chas Kirschenbaum  
 Rivington St 151—Schneider & Kandel  
 Rose St 35-37—Geo Weiderman Elec Co  
 Second Ave 73—J Brown  
 Stanton St 62—Sommer & Fuchs  
 Third Ave 208 and 348—Irving Kenner Co  
 Third Ave 1021—E Kalkan  
 Third Ave 1373—H Goldberg  
 Third Ave 1397—Chas J Eichman  
 Third Ave 1915—I Gabriel  
 Third Ave 2586—A F Eggers  
 Third Ave 2998—I Gurland  
 Wall St 2—Edwin C Gee

### Bronx

Altmann Leopold—1226 Washington Ave  
 Blackman & Guttman—226 East 144th St  
 Bogan Irving A—4192 Park Ave  
 Casey Hugh J—4206 Park Ave  
 Dunn Edw W—32 West Fordham Road  
 Dwyer M J—447 East 180th St  
 Edelmuth Jos—1046 Jackson Ave  
 Eggers Albert F—2586 Third Ave  
 Elkan Robert—897 Home St  
 Ellerbrock Herman H—379 East 138th St  
 Evans & Kaestner—939 Intervale Ave  
 Fox Leonard B—313 E 141st St  
 Hegeler F H—305 E 180th St  
 Howe J F—3113 Webster Ave  
 Israel & Co—2559 Third Ave  
 Josephson Joseph B—785 Forest Ave  
 Kuhn George—531 E 184th St  
 Landy Jacob—673 Elton Ave  
 Lowe J—835 E 152d St  
 M & M Electric Co—1643 Nelson Ave  
 Mathias J J—443 Willis Ave  
 Martin Robert C—815 E 180th St  
 Neilson Brothers—2580 Briggs Ave  
 Oehnke Paul—390 E 141st St  
 Pircher Frank S—339 E 140th St  
 Rosenfield & Harris—915 Whitlock Ave  
 Ross Edwin L—356 East 138th St  
 Sayles Electric Co—736 E 163d St  
 Schwarzler M & Son—460 E 167th St  
 Sladek Frank—3440 Third Ave  
 Starobin Jos—860 East 162d St  
 Strachan E A—435 E 155th St  
 Uhlendorf—5 Gouverneur Place  
 Vielberth Joseph F—1243 Taylor Ave  
 Woods Lewis H—2355 Jerome Ave  
 Yale Electric Co—650 Melrose Ave

### Yonkers

Briant Leslie D—30-32 Nepperhan St  
 Excelsior Gas & Elec Fix Co—42 Warburton Ave  
 Haussler Wm A—12 Riverview Place  
 Kips John—28 Cedar St  
 Nugent Electric Co—42 Warburton Ave  
 Snow W J—Crestwood  
 Stillman J E & Co—15 Warburton Ave  
 Stroh Electric Co—16 Riverdale Ave  
 Westchester Elect Equipment Co—73 Main St  
 Yonkers Electric Co—7 Manor House Square  
 Yonkers Lighting Fixture Co—73 Main St  
 Youmans Electric Co—45 Main St





*Tech. Div.*

# THE EDISON MONTHLY

JANUARY

*VGA*



1918

THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.



# Eliminate Ice Handling

Edison Service for refrigeration costs from five cents to approximately two cents a kilowatt hour. The exact cost depends on the amount of electric current used.

About thirty kilowatt hours give the same cooling effect as One Ton of melted ice.

Electric Refrigeration not only guarantees a dependable supply, but it does away with all the inconvenience of ice handling.

Many of the city's largest provision houses have adopted Central Station service. The result has been increased efficiency and economy and an absence of waste.

If still doing your refrigerating in the old way we shall be glad to furnish without cost details and estimates on The Edison Way.

## The New York Edison Company

*At Your Service*

General Offices: Irving Place and 15th St Phone: Stuyvesant 5600

Branch Office Show Rooms for the Convenience of the Public

424 Broadway	Canal 8600	151 East 86th Street	Lenox 7780
126 Delancey Street	Orchard 1960	15 East 125th Street	Harlem 4020
10 Irving Place	Stuyvesant 5600	362 East 149th Street	Melrose 9960
124 West 42nd Street	Bryant 5262	Night and Emergency Call, Farragut 3000	

All Show Rooms Open Until Midnight

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*Vol 10. # 9*

# THE EDISON MONTHLY

## FEBRUARY



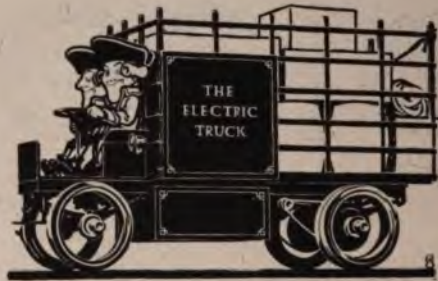
1918

THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.

*VGA*



# The Cold Weather Truck



The recent severe weather has again shown the Electric Truck as the most dependable vehicle for winter traffic. It readily stands low temperatures and ploughs through deep snow drifts.

If still trying to solve your delivery problems on the old basis, our Automobile Bureau will gladly advise you.

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# THE EDISON MONTHLY

MARCH

VGA



## 1918

THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.



# Edison Supply

## Saves Big Hotel

### \$300 a Month

Frank C. Hurley, proprietor of "The Hermitage," said, "Edison Service has saved me \$1500 since I closed down my plant last September. I have no further use for a private plant. In fact, I would not advise installing one in any new property."

Here is straightaway evidence. Private supply was costing too much. Street service was tried. Five months have more than shown its superior economy.

What our supply is doing at "The Hermitage" it is doing in buildings and industries of every kind. Let us prove its value for your purpose.

## The New York Edison Company

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*Edison Div*

*Vol 10*

# THE EDISON MONTHLY

APRIL



1918

*VGA*

THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.



# We Shall Prove Worthy Of Our Heritage

*This is a good time to consider the history of our country. It is three thousand miles from one American coast to another, and every mile was fought for.*

Our forefathers fought for the privilege of mere existence. They fought the terrors and hardships of an unknown and forbidding land; they fought cold, hunger, wild beasts and blood-thirsty savages; they fought their mother country and all others which sought to curtail or threaten their liberties, and when it was proposed to sever the ties which bound together

the federation of states, which they had formed, they fought that issue to a finish in the greatest war the world had seen.

We owe our country to the fact that we descended from a race of fighters. The red stripes in our flag symbolize the blood so freely shed for the principles and ideals of which that flag is the standard.

*We are fighting today because those principles and ideals would otherwise be trampled under the foot by the enemy which assails them.*

We will not prove false to the trust reposed in us; we will not lose, through cowardice or recreancy, the precious inheritance bought for us by the sacrifices and suffering of the founders and defenders of our country; we too are ready to fight for liberty, justice, and democracy, and to devote our last man and our last dollar to their support and protection.

## We will invest in Liberty Bonds



LIBERTY BOND COMMITTEE  
2000 FIFTH AVENUE, ROOM 1000  
NEW YORK CITY

## The New York Edison Company At Your Service

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*July 7*      *tech*      *0*

# THE EDISON MONTHLY

MAY



1918

*VGA*

THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.





*"A Great Net of Mercy Drawn Through  
an Ocean of Unspeakable Pain"*

## What Your Red Cross Dollars Do

### An Accounting of Expenditures of the First Red Cross War Fund

Every one of the twenty million and more Red Cross members is entitled to this Statement. Your local Red Cross Chapter can give you further details.

*First War Fund Appropriations up to March 1st, 1918*

Foreign Relief		United States Relief	
Relief in France.....	\$30,936,103.04	U. S. Army Base Hospitals.....	\$54,000.00
Relief in Belgium.....	2,086,131.00	U. S. Navy Base Hospitals.....	32,000.00
Relief in Russia.....	1,243,845.07	U. S. Medical and Hospital Work	531,000.00
Relief in Roumania.....	2,676,368.76	U. S. Sanitary Service .....	403,000.00
Relief in Italy.....	3,588,826.00	U. S. Camp Service .....	6,451,150.86
Relief in Serbia.....	875,180.76	U. S. Miscellaneous .....	1,118,748.41
Relief in Great Britain.....	1,885,750.75	Total U. S. Relief.....	\$8,589,899.27
Relief in other Foreign Countries	3,576,300.00	Working capital for purchase of	
Relief for Prisoners, etc. ....	343,304.00	supplies for resale to Chapters or	
Equipment and expenses in U. S.		for shipment abroad .....	15,000,000.00
of Personnel for Europe.....	113,800.00	Working cash advances for France	
Total Foreign Relief.....	\$47,325,609.38	and United States.....	4,286,000.00
Restricted as to use by Donor.....	2,520,409.57	Total of War Fund Appropriations,	\$77,721,918.22

At the close of the first year of the War the Red Cross goes to the public for the raising of the Second War Fund with a record of appropriation which warrants continued contributions to this great relief work. As an influential citizen of your community, join with your local Red Cross Chapter to make this campaign successful. Your Red Cross is the Army behind the Army. Give till your heart says stop.

*Second Red Cross War Fund Week, May 20-27*

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1918

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# THE EDISON MONTHLY

JUNE



1918

THE NEW YORK EDISON COMPANY  
IRVING PLACE & 15<sup>th</sup> STREET N. Y.



# Service Security Plus

A service connection with the Edison System spells all the difference between the uncertainty of self-supply and the certainty of Central Station supply.

Our great Waterside Stations with thirty-two substations serve a distribution network so inter-related as to place the danger of interruption at a minimum.

Connections are increased wherever the size of the installation demands such connections.

This is Security Plus, a security no private supply, however complete, can begin to contemplate.

The System with all its dependableness is yours to draw upon. Let our engineers show what it will do for you.

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# THE EDISON MONTHLY

JULY



1918

THE NEW YORK EDISON COMPANY  
IRVING PLACE AND FIFTEENTH STREET



# You Believe in Specialists

A building contractor, a specialist,  
puts up your building.

Wiremen, plumbers, decorators—  
all specialists—get it ready to use.

You look to specialized sources  
for water, fuel, telephone and tele-  
graph service.

Let us as specialists supply you with  
**Electric Service**

Perfect in quality

Unlimited in quantity

Cheaper in every way

You owe this to your tenants and  
you owe it to yourself. Don't put  
off seeing us about it.

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# THE EDISON MONTHLY

AUGUST



1918

THE NEW YORK EDISON COMPANY  
IRVING PLACE AND FIFTEENTH STREET



# Our Specialty

Building managers realize to-day that making electricity is a highly specialized business. This business, as represented by our Waterside Stations, embodies the most highly skilled engineers, the most efficient machinery, and the greatest reserves in fuel and apparatus that money can procure.

With service from this sure and unlimited source entering a building, the management is freed from all worry in electrical matters. The supply is there, dependable at all times and under all conditions.

It is this service and only this service that can assure the successful handling of modern property. Estimates covering your particular needs will be furnished promptly.

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# THE EDISON MONTHLY

SEPTEMBER



1918

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THE NEW YORK EDISON COMPANY  
IRVING PLACE AND FIFTEENTH STREET









**This book is under no circumstances to be  
taken from the Building**

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